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BEFORE THE ARIZONA POWER PLANT AND
TRANSMISSION LINE SITING COMMITTEE

Arizona Corporation Commission

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IN THE MATTER OF THE APPLICATION
OF SOUTHERN CALIFORNIA EDISON
COMPANY AND ITS ASSIGNEES IN
CONFORMANCE WITH THE
REQUIREMENTS OF ARIZONA REVISED
STATUTES SECTIONS 40-360.03 AND
40-360.06 FOR A CERTIFICATE OF
ENVIRONMENTAL COMPATIBILITY
AUTHORIZING CONSTRUCTION OF A
500kV ALTERNATING CURRENT
TRANSMISSION LINE AND RELATED
FACILITIES IN MARICOPA AND LA PAZ
COUNTIES IN ARIZONA ORIGINATING
AT THE HARQUAHALA GENERATING
STATION SWITCHYARD IN WESTERN
MARICOPA COUNTY AND
TERMINATING AT THE DEVERS
SUBSTATION IN RIVERSIDE COUNTY,
CALIFORNIA

Docket No. L-00000A-06-0295-00130

Case No. 130

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SOUTHERN CALIFORNIA EDISON COMPANY'S

NOTICE OF FILING CPUC ORDER

Southern California Edison Company ("SCE") hereby files a copy of the Public
Utilities Commission of the State of California's ("CPUC") Opinion Granting a
Certificate of Public Convenience and Necessity to construct the Devers-Palo Verde
No. 2 transmission line project. This Decision No. 07-01-040 was entered by the CPUC
on January 25, 2007.

1 RESPECTFULLY SUBMITTED this 2nd day of February, 2007.

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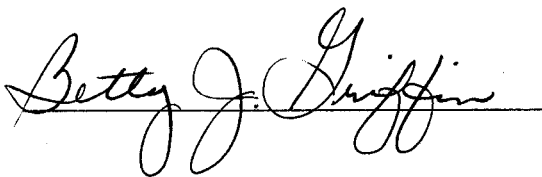
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Decision 07-01-040 January 25, 2007

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of Southern
California Edison Company (U 338-E) for a
Certificate of Public Convenience and Necessity
Concerning the Devers-Palo Verde No. 2
Transmission Line Project.

Application 05-04-015
(Filed April 11, 2005)

(See Attachment C for List of Appearances.)

**OPINION GRANTING A CERTIFICATE OF
PUBLIC CONVENIENCE AND NECESSITY**

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Attachment A – Mitigation Measures

Attachment B – CEQA Findings of Fact

Attachment C – List of Appearances

OPINION GRANTING A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

I. Summary

This decision grants a certificate of public convenience and necessity (CPCN) to Southern California Edison Company (SCE) to construct the Devers-Palo Verde No. 2 (DPV2) transmission line project. This project includes two major transmission lines. The first will be a second 500 kilovolt (kV) alternating current transmission line between southern Arizona near the Palo Verde nuclear generating plant, and SCE's existing Devers substation located in North Palm Springs in Riverside County, California. This Devers-Harquahala transmission line will be approximately 230 miles long, depending on final routing choices. Approximately 102 miles of this line will be located in Arizona and the remainder in California.

To allow the power to reach SCE's load centers, the Commission also authorizes SCE to construct the 41.6-mile Devers-Valley No. 2 transmission line, an alternative to the West of Devers portion of the DPV2 project proposed by SCE. Devers-Valley No. 2 will be a second 500 kV transmission line between the Devers substation and SCE's Valley substation located in the unincorporated community of Romoland in Riverside County.

The DPV2 project¹ will increase the transfer capability between southern California and Arizona by 1,200 megawatts (MW), providing greater access to

¹ Because Devers-Valley No. 2 is an integral part of the system upgrades necessary to increase the transmission transfer capability between southern California and Arizona, we use the term "DPV2" to refer to the combined Devers-Harquahala and Devers-Valley No. 2 transmission lines.

sources of low-cost energy in the Southwest. Parties have provided convincing evidence that DPV2 will provide economic and other benefits to California ratepayers.

The Commission authorizes SCE to construct the Devers-Harquahala line from either the existing Harquahala Generating Company switchyard located approximately 49 miles west of Phoenix, Arizona, as proposed by SCE, or a new Harquahala Junction switchyard that would be constructed about five miles east of the Harquahala switchyard at the point where the existing Harquahala-Hassayampa transmission line and SCE's existing Devers-Palo Verde No. 1 (DPV1) transmission lines diverge. Because terminating DPV2 at Harquahala Junction is less costly and is the environmentally preferred alternative, we instruct SCE to pursue good-faith efforts to reach a commercially reasonable agreement and seek the additional authorizations needed for construction of Harquahala Junction. If Harquahala Junction does not receive the needed approvals in Arizona or is otherwise not feasible, SCE may terminate DPV2 at the Harquahala switchyard.

The route for DPV2 between the Harquahala area and the Devers substation will parallel the existing DPV1 route, except that it may diverge from DPV1 to eliminate or reduce impacts in the Alligator Rock Area of Critical Environmental Concern (ACEC)² in Riverside County. The Alligator Rock—North of Desert Center alternate route segment would avoid the Alligator Rock ACEC and is environmentally preferable to the proposed route paralleling DPV1

² An ACEC is an area within the public lands managed by the United States Department of Interior, Bureau of Land Management (BLM) that BLM designates for protection of historic, cultural, scenic, fish and wildlife, or other identified resources.

through the ACEC. The proposed route segment through the ACEC and most of the North of Desert Center alternative are on federal land controlled by BLM. We authorize SCE to construct the North of Desert Center alternative if BLM authorizes this route. Otherwise, SCE may build DPV2 on a route segment through the Alligator Rock ACEC area that is acceptable to BLM, if the route segment received full consideration in the Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) or if it deviates from one of the reviewed segments solely within BLM land and BLM undertakes supplemental environmental review.

The Devers-Valley No. 2 transmission line will be constructed adjacent to SCE's existing Devers-Valley No. 1 transmission line and primarily within existing SCE easements. SCE initially proposed upgrades to approximately 48 miles of existing 230 kV transmission lines, which SCE called the West of Devers portion of the proposed project. However, we conclude that the West of Devers upgrades are not feasible and that the Devers-Valley No. 2 alternative is a viable and acceptable alternative.

The Commission also authorizes SCE to construct certain upgrades to other electrical transmission and telecommunications facilities related to the Devers-Harquahala and Devers-Valley No. 2 transmission lines.

We adopt a maximum cost³ for DPV2 of \$545,285,000 in 2005 dollars, which is decreased by \$24,080,000 if the Devers-Harquahala line is terminated at

³ Pub. Util. Code § 1005.5(a) provides that "Whenever the commission issues to an electrical...corporation a certificate authorizing the new construction of any addition to or extension of the corporation's plant estimated to cost greater than fifty million dollars (\$50,000,000), the commission shall specify in the certificate a maximum cost determined to be reasonable and prudent for the facility."

Harquahala Junction. The maximum authorized cost is increased by \$8,282,000 if the Alligator Rock—North of Desert Center route segment is used.

The Final EIR/EIS for the DPV2 project, prepared jointly by the Commission pursuant to the California Environmental Quality Act (CEQA)⁴ and BLM pursuant to the National Environmental Policy Act (NEPA), finds that the authorized project has several significant unmitigable environmental impacts. In order to reduce the environmental impacts to the extent feasible, we adopt the mitigation measures SCE proposes (called "Applicant Proposed Measures") and additional mitigation measures recommended in the Final EIR/EIS with one modification. However, some impacts will remain significant even after the implementation of mitigation. The approved mitigation measures are contained in Attachment A to this decision. The Commission also adopts the mitigation monitoring plan proposed in the Final EIR/EIS. SCE must comply with the adopted mitigation measures and mitigation monitoring plan as a condition of accepting its CPCN. We modify the Final EIR/EIS in two other respects and certify that it has been completed in compliance with CEQA.

Upon balancing the substantial economic, operational, and other benefits of the DPV2 project against the unavoidable environmental risks, we find that the DPV2 project should be approved, with the modifications and conditions contained in this decision. In Section VII, we include a statement of overriding considerations for the authorized DPV2 project, as required by CEQA.

⁴ Public Resources Code § 21000 *et seq.*

II. Background

A. Procedural History

SCE first submitted an application to construct a second transmission line between the Devers substation and the Palo Verde nuclear plant in 1985, and in Decision (D.) 88-12-030 the Commission granted a CPCN approving the DPV2 project as then proposed, conditioned upon submission of transmission service contracts associated with the project and other requirements. In 1997, the Commission granted SCE's request to abandon plans to construct the DPV2 project.

Beginning in 2003, the regional Southwest Transmission Expansion Planning (STEP) group evaluated a number of potential transmission upgrades. Through a consensus process, the group developed a general expansion plan that includes the DPV2 project. The Board of the California Independent System Operator (CAISO) approved the DPV2 project on February 24, 2005. On September 7, 2006, the CAISO Board approved the Harquahala Junction and Devers-Valley No. 2 modifications to the proposed project.

On April 11, 2005, SCE filed Application (A.) 05-04-015, its current application for a CPCN for the DPV2 project, accompanied by its Proponent's Environmental Assessment (PEA). The Commission opened Investigation (I.) 05-06-041 on June 30, 2005, to consider appropriate principles and methodologies for assessment of the economic benefits of proposed transmission projects, including DPV2, that are submitted for Commission approval. A joint prehearing conference was held in A.05-04-015 and I.05-06-041 on July 20, 2005. The assigned Commissioner issued a joint scoping memo for A.05-04-015 and I.05-06-041 on August 26, 2005. The scoping memo categorized this proceeding as ratesetting and stated that hearings were necessary. The scoping memo also

provided that evidence regarding DPV2 would be received in two phases. Phase 1 in A.05-04-015 and I.05-06-041 received evidence regarding the economic methodology used to assess cost-effectiveness and DPV2-specific need issues. Phase 2, in A.05-04-015 only, addressed environmental, routing, updated cost estimates, and other issues related to DPV2.

As provided in a September 27, 2005 ruling by the Administrative Law Judge (ALJ), parties filed comments and reply comments on Phase 1 issues. An ALJ ruling dated October 28, 2005 provided further guidance regarding the scope of Phase 1 testimony and evidentiary hearings.

Three days of evidentiary hearings were held in Phase 1 on January 10-12, 2006. The following parties filed opening briefs in Phase 1: the CAISO, SCE, Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), Division of Ratepayer Advocates (DRA), The Utility Reform Network (TURN), Bay Area Municipal Transmission Group (BAMx),⁵ and Global Energy Decisions, Inc. (Global Energy). All of these parties except BAMx also filed reply briefs. Following the receipt of late-filed exhibits and opening and reply briefs, Phase 1 was submitted on March 24, 2006.

Evidentiary hearings were held in Phase 2 on July 10, 2006. SCE and DRA filed opening briefs in Phase 2. SCE filed a reply brief. Following the receipt of late-filed exhibits⁶ and opening and reply briefs, Phase 2 was

⁵ BAMx is an unincorporated association of publicly owned utilities located in the Greater Bay Area. Members include the City of Santa Clara, Alameda Power and Telecom, and City of Palo Alto Utilities.

⁶ Consistent with an October 31, 2006 e-mail ruling by the ALJ, SCE's motion to submit late-filed Exhibit 43 is granted.

submitted on November 13, 2006. In opening briefs, no party requested final oral argument before the Commission, as allowed by the scoping memo.

A joint State-federal environmental analysis of the proposed DPV2 project has been undertaken pursuant to CEQA and NEPA. The Commission, as the State lead agency under CEQA, and BLM, as the federal lead agency under NEPA, retained outside consultants to conduct the environmental review. The Commission's Energy Division oversaw the consultants' work on behalf of the Commission.

In November 2005 and January 2006, the Commission's Energy Division and BLM staff held eight scoping meetings in California and Arizona to collect public input for the scope and content of the joint EIR/EIS and for alternatives and mitigation measures to consider. In addition, six consultation meetings were held with agencies and local jurisdictions to discuss the proposed project. A Scoping Report for the CEQA process was issued in December 2005 and an addendum to the Scoping Report was issued in February and March 2006. The draft EIR/EIS was issued on May 4, 2006. The Commission's Energy Division and BLM staff held six public workshops on the draft EIR/EIS and the ALJ held three public participation hearings in June and July, 2006. The Final EIR/EIS was published on October 25, 2006.⁷

On November 9, 2006, the Commission issued D.06-11-018 in I.05-06-041. In that decision, we adopted general principles and minimum requirements for economic evaluations of proposed transmission projects that

⁷ As provided in an October 31, 2006 ALJ ruling, the three volumes of the draft EIR/EIS have been entered into the record in A.05-04-015 as Exhibits 35, 36, and 37. The three volumes of the Final EIR/EIS are Exhibits 40, 41, and 42.

may be submitted in CPCN proceedings. While we considered the methodologies parties used in their economic evaluations of DPV2 in D.06-11-018, we did not address the economic value of DPV2. In today's decision, we consider all of the relevant factors that affect the cost-effectiveness of DPV2. We assess the parties' economic evaluations of DPV2 on their merits, recognizing that our guidance adopted in D.06-11-018 was not available when the evaluations were prepared.

The DPV2 project would traverse State and federal land in California and Arizona. The Arizona Corporation Commission must issue a Certificate of Environmental Compatibility before SCE can construct the project. In addition, BLM must determine whether to grant a Right of Way Grant on BLM-administered land in California and Arizona. SCE will also be required to obtain permits from several other State, federal, and local jurisdictions, including a Compatibility Determination from the United States Fish and Wildlife Service (USFWS) regarding proposed construction through the Kofa National Wildlife Refuge (Kofa).

B. Scope of Proceeding

In its application, SCE asserts four justifications for the DPV2 project, which can be summarized as follows:

1. That DPV2 would be cost-effective for California electricity customers because it would allow for greater access to low-cost, surplus generation in Arizona.
2. That DPV2 would enhance competition among the generating companies that supply energy to California and would facilitate SCE's resource procurement approach approved in D.04-12-048.

3. That the additional transmission infrastructure provided by DPV2 would support and induce the development of future energy suppliers selling energy into the California energy market and that DPV2 would increase liquidity in the market and, thus, help mitigate market power.
4. That DPV2 would provide resource reliability benefits, flexibility in operating California's transmission grid, and additional import capacity that may be needed during unanticipated conditions.

In the scoping memo, the assigned Commissioner found that the scope of A.05-04-015 includes the following as to the proposed project using SCE's preferred route and configuration, alternative routes and configurations, the No Project alternative considered pursuant to CEQA requirements, and non-wires alternatives:

- Need for the project (Pub. Util. Code § 1001⁸) including, but not limited to, the four justifications submitted in SCE's application.
- Consideration of the following factors contained in § 1002:
 - 1) Community values;
 - 2) Recreational and park areas;
 - 3) Historical and aesthetic values; and
 - 4) Influence on the environment.
- Consideration, pursuant to General Order (GO) 131-D, of whether the project promotes the safety, health, comfort, and convenience of the public.

⁸ All cites to code sections refer to the Public Utilities Code unless specified otherwise.

- Consideration, pursuant to GO 131-D, of measures to reduce the potential exposure to electric and magnetic fields (EMF) generated by the proposed facilities.
- Consideration, pursuant to CEQA, of significant effects of the project on the environment; alternatives to the project; the manner in which significant environmental effects can be mitigated or avoided; and whether economic, social, or other conditions make it infeasible to mitigate significant effects on the environment.
- How SCE would comply with § 625.
- Impacts on the transmission grid and other transmission users.
- Cost-effectiveness and cost allocation.
- Project costs.
- Specification of a "maximum cost determined to be reasonable and prudent" pursuant to § 1005.5(a).

III. Project Benefits

In this section, we address the economic and other benefits that parties attribute to DPV2, and compare those benefits to project costs. We conclude that DPV2 will provide significant economic benefits for CAISO ratepayers, and that it would also provide operational and other benefits. We find that potential alternatives to DPV2 are insufficient and are unable to provide the economic and other benefits of DPV2.

A. Economic Evaluation of DPV2

SCE, the CAISO, and DRA submitted economic evaluations of the proposed DPV2 project. Other parties made recommendations regarding the

cost-effectiveness of DPV2 based on review of the submitted economic evaluations or commented on specific aspects of the methodologies employed in the economic evaluations.

1. Benefit Perspectives

SCE, the CAISO, and DRA evaluated the benefits of the proposed DPV2 transmission project by comparing estimates of total costs that would be incurred without the proposed project and total costs if the proposed project is built.

As described in D.06-11-018, the benefit perspective of CAISO-area ratepayers is of primary importance in the Commission's evaluation of a proposed transmission project, since it reflects the effects on customers of the utilities within our jurisdiction.⁹ All three parties reported the net impact of the DPV2 project on CAISO ratepayers. The CAISO also presented benefit results for the entire Western Electricity Coordinating Council (WECC) region (the WECC or Societal perspective). SCE provided limited information regarding potential economic impacts in Arizona and the WECC region.

As noted in D.06-11-018, there are three general categories of costs or benefits arising from operation of a transmission project: (1) the change in total production costs, or energy benefits, (2) changes in other quantifiable economic benefits and costs not derived from production cost analyses, and (3) foreseeable project consequences whose expected economic effects cannot be monetized. We address these three types of costs and benefits with respect to DPV2 in Sections

⁹ As noted in D.06-11-018, while CAISO ratepayers include some non-jurisdictional entities, consideration of all CAISO ratepayers is an analytical convenience with minor effects on the economic evaluation.

III.A.3, III.A.4, and III.B, respectively. We evaluate construction and operational costs of DPV2 in Section III.A.5.

The energy benefits due to a transmission project consist of the net changes in consumer costs (consumer surplus), producer net income (producer surplus), and congestion revenues flowing to transmission owners or holders of transmission rights (transmission surplus). Since the Societal WECC-wide perspective represents a largely closed system with few imports or exports, the Societal benefit computed as the DPV2-caused net WECC-wide change in consumer surplus, producer surplus, and congestion revenues closely approximates the overall change in energy production costs due to operation of DPV2.

Energy benefits from the CAISO Ratepayer perspective are the net result of the increase in consumer surplus and changes in the utility-retained generation producer surplus and the Participating Transmission Owner (PTO) congestion revenues in the CAISO area. The producer surplus and congestion revenues received by CAISO-area utilities ultimately benefit CAISO-area consumers, because the utilities' generation and congestion revenues reduce revenues that would otherwise be sought from consumers to cover costs.

In D.06-11-018, the Commission declined to adopt a threshold benefit-cost ratio or payback period that a transmission project proposed for its economic benefits would be required to achieve in order to be granted a CPCN. As we explained in that decision, transmission projects such as DPV2 may have other benefits and costs in addition to those that can be quantified in a benefit-cost ratio. In Sections III.D and VII, we consider and weigh all relevant factors, including environmental impacts, in reaching a decision on SCE's CPCN request.

2. Overview of Parties' Economic Evaluations of DPV2

a) SCE

The results of SCE's economic evaluation of DPV2, as contained in its PEA and Exhibit 6, are summarized in Table 1. To allow comparison of DPV2 costs and benefits, SCE calculated the 2005 present value of DPV2 revenue requirements using SCE's fixed charge rate model and discounting at an assumed 10.5% marginal cost of capital. SCE projects that DPV2 will provide benefits to CAISO ratepayers of almost \$460 million in excess of its costs, with a resulting benefit-cost ratio of 1.71.

Table 1

SCE's Economic Evaluation of DPV2 Proponent's Environmental Assessment

(CAISO Ratepayer Perspective)
(Net Present Value, \$2005 Million)

Energy benefits	\$ 1,063.3
Increased transmission revenues	\$ 28.4
Reduction in franchise fees and uncollectibles	<u>\$ 13.0</u>
Total benefits	\$ 1,104.7
DPV2 costs	\$ 645.6
Benefit-cost ratio	1.71

In addition to energy benefits, SCE reports that CAISO-area transmission owner revenues will increase due to the DPV2-caused increase in revenue requirements, which would increase rates for CAISO wheeling service

and Existing Transmission Contracts, and thus would decrease the revenues required from CAISO ratepayers. SCE also includes the effect of DPV2-caused reductions in energy costs on revenues needed for franchise fees and uncollectibles.

An earlier economic evaluation of DPV2 that SCE submitted to the CAISO on March 17, 2005 contained more detail than the economic evaluation submitted in the PEA. As summarized in Table 2, the March 17, 2005 study provided disaggregated CAISO Ratepayer benefits, which indicate the extent to which SCE forecasts that utility-retained generation and PTO congestion revenues would decrease as a result of DPV2's operation.

Table 2

SCE's Evaluation of DPV2 Energy Benefits
March 17, 2005 Report to CAISO
(CAISO Ratepayer Perspective)
(Net Present Value, \$2005 Million)

Consumer surplus	\$ 1,850
URG producer surplus	(\$ 685)
PTO congestion revenue	<u>(\$ 96)</u>
Net energy benefits	\$ 1,069

In its March 17, 2005 economic evaluation, SCE modeled DPV2 operation for the years 2009 through 2014, and reported energy results for those years from the WECC-wide or Societal perspective and the perspective of Arizona customers, in addition to the CAISO Ratepayer perspective. With the assumptions underlying SCE's evaluation, the results in Table 3 indicate that

Arizona customers would not benefit from DPV2 during the modeled years. SCE did not report lifecycle benefit-cost ratios from these additional perspectives. We address these impacts further in Section III.D.

Table 3
SCE's Evaluation of DPV2 Yearly Energy Benefits
March 17, 2005 Report to CAISO
(\$2004 Million)

	WECC (Societal)	CAISO Ratepayers	Arizona
2009 (6 months)	\$ 11	\$ 45	(\$ 7)
2010	21	87	(11)
2011	21	92	(11)
2012	21	89	(12)
2013	26	118	(16)
2014	25	111	(17)

SCE forecasted DPV2's impact on energy costs using the Global Energy (formerly Henwood) production cost model using a "transportation" power flow simulation. In a transportation model, generator and load locations are aggregated into zones, and power is simulated to flow along contract paths between the zones, with each path potentially representing multiple transmission lines. Flows between zones are restricted by modeler-specified

limits and do not reflect the effects of loop flow. A transportation model calculates prices on a zone-wide basis.

SCE used a stochastic approach to assess DPV2's energy benefits over a wide range of load forecasts, natural gas prices, and available hydroelectric generation. SCE assigned probability distributions to these key factors, based on documented historical variations, and simulated system operations under 100 different combinations of future conditions based on values chosen from the probability distributions using Monte Carlo (random sampling) techniques. SCE then calculated energy benefits as the probability-weighted expected value of benefits based on results of the 100 system simulations.

SCE calculated electricity prices and resulting consumer and producer surpluses based on projected spot market prices equal to marginal costs in each modeled zone. SCE did not reflect that, in some market conditions, generators may be able to sell power at prices in excess of marginal costs, i.e., that they may successfully mark up their bids above marginal costs and receive higher revenues in an exercise of market power.

b) CAISO

The results of the CAISO's economic evaluation of DPV2 are summarized in Table 4. The CAISO finds DPV2 to be cost-effective, with the CAISO Ratepayer benefit-cost ratio likely to be in the range between 1.25 and 3.34. This range arises because of uncertainty regarding congestion revenues between the CAISO control area, with its planned market redesign based on locational marginal prices (LMP), and Arizona.

Table 4
CAISO Economic Evaluation of DPV2
(Levelized Annual \$2008 Million/Year)

	Societal Perspective	Modified Societal	CAISO Ratepayer (LMP Only)	CAISO Ratepayer (LMP + Contract Path)
Levelized Benefits:				
Energy	\$ 56	\$ 84	\$ 57	\$ 198
Operational	20	20	20	20
Capacity	12	12	6	6
System Loss	2	2	1	1
Emissions	1	1	1	1
Total Benefits	\$ 91	\$ 119	\$ 84	\$ 225
Levelized Costs	\$ 67	\$ 67	\$ 67	\$ 67
Benefit-Cost Ratio	1.35	1.77	1.25	3.34

As indicated in Table 4, the CAISO presents economic results for two versions of the Societal perspective and two versions of the CAISO Ratepayer perspective. Unlike SCE and DRA, the CAISO forecasts the extent to which producers may exercise market power to bid up prices above system marginal costs. The two versions of the Societal perspective differ in their treatment of the effects of DPV2 in mitigating the ability of generators to exert

market power. In the CAISO's basic Societal perspective, the reduction in market power-derived producer profits that the CAISO forecasts due to DPV2 is viewed as a negative benefit and offsets much of the projected consumer benefits from reduced energy costs. What the CAISO calls the Modified Societal perspective does not consider that portion of producer surplus arising from the exercise of market power to be a valid benefit and, thus, reflects the related increase in consumer surplus as a benefit. Because of the societal value in reducing producer monopoly profits, we determined in D.06-11-018 that, for evaluations that include strategic bidding above system marginal costs, the Modified Societal perspective, rather than the CAISO's Societal perspective, is the appropriate perspective to use in evaluating the societal benefits of a proposed transmission project.

To evaluate potential energy benefits of DPV2, the CAISO used the PLEXOS Direct Current Optimal Power Flow network model. A network model simulates electrical flows on individual transmission lines based on electrical principles and line characteristics, and models loop flow. Such a model optimizes the dispatch of generators to provide least-cost supply and permits calculation of LMP, consistent with the CAISO market redesign planned for the end of 2007.

The CAISO based its calculations for what it calls the CAISO Ratepayer (LMP Only) test on the modeling assumption that an LMP-based market structure would be applicable throughout the WECC. However, most of WECC employs contract-path scheduling, with no plans to implement an LMP-based market structure. The CAISO acknowledges that, as a result, its CAISO Ratepayer (LMP Only) calculation overestimates CAISO-area utilities' loss of

congestion revenue due to DPV2 and thus underestimates CAISO ratepayer benefits.

Because of the inaccuracy in its modeling of WECC-wide operations, the CAISO also reports an adjusted CAISO Ratepayer (LMP + Contract Path) benefit perspective. This adjusted calculation excludes much of the congestion revenues between southern California and the Southwest indicated by the CAISO's LMP-based modeling. This exclusion results in substantially lower pre-DPV2 congestion revenues for CAISO utilities, and consequently a much lower negative benefit in the form of reduced congestion revenues when DPV2 is added. Recognizing some shortcomings to this adjustment as well, the CAISO believes that "the true answer lies somewhere between the CAISO benefits computed with and without this adjustment."

The CAISO developed low, medium, and high forecasts for load growth, hydro conditions, gas prices, and the degree of market power exhibited in producers' bids. To analyze the effects of uncertainty on the energy benefits of DPV2, the CAISO performed system simulations for 17 representative (out of 81 possible) combinations of the identified variations in these market conditions. It assigned probabilities to each of the 17 scenarios and used the results to calculate probability-weighted benefit-cost ratios. The CAISO also analyzed energy benefits for eight contingency scenarios representing certain outages and other contingency events, for which it did not assign probabilities and whose results it did not include in the calculated benefit-cost ratios.

In addition to energy benefits, the CAISO quantifies and includes in the reported benefit-cost ratios several non-energy benefits of the DPV2 upgrade as indicated in Table 4, principally operational benefits and capacity value. The CAISO assumes that the annual benefits for each of these areas of

non-energy savings would not change over time in real terms and would not depend on market conditions such as demand, gas prices, or hydro conditions.

c) DRA

DRA's economic evaluation of DPV2, prepared with the assistance of its consultants including Woodruff Expert Services (WES), is summarized in Table 5. DRA forecasts that, with two successive sets of adjustments to SCE's base case analysis, DPV2 will provide net energy benefits of \$261 million in excess of DPV2's costs, with a CAISO Ratepayer benefit-cost ratio of 1.31.

Table 5
DRA Economic Evaluation of DPV2
(CAISO Ratepayer Perspective)
(Net Present Value, \$2005 Million)

	Deterministic Reference Case	WES Reference Case
Energy benefits	\$ 595	\$ 907
DPV2 costs	\$ 646	\$ 646
Benefit-cost ratio	0.92	1.31

DRA used the same system model and database used by SCE. DRA reviewed SCE's economic evaluation of DPV2, but did not address the CAISO evaluation in its testimony.¹⁰ DRA critiques several methods and assumptions used by SCE, describing some that underestimated and others that overestimated the value of DPV2. To address some of these concerns, DRA prepared a two-step analysis. First, DRA prepared what it called a Deterministic Reference Case, which used SCE's base forecasts for loads, gas prices, and hydro conditions but changed certain modeling conventions. As the second step, DRA updated SCE's gas price forecast to the higher forecast current at the time of DRA's assessment. DRA calls this deterministic simulation the WES Reference Case.

DRA considered uncertainty by evaluating eight sensitivity and contingency cases involving extreme outage events or alternative assumptions regarding gas prices and supply conditions. To assess the impact of forecast risk on the estimated value of DPV2, DRA used what it called an Uncertainty Margin method to conclude that the level of forecast risk can be relatively high without jeopardizing the conclusion that DPV2 is likely to provide net benefits.

DRA also undertook what it calls a tipping point analysis to identify which parameters, assumptions, or relationships drive the conclusions of its economic evaluation of DPV2. It identified four variables as tipping points: modeling conventions, the natural gas price differential between Arizona and California, the on-line status of the Palo Verde nuclear units, and the wholesale

¹⁰ On January 3, 2006, SCE and DRA submitted a joint recommendation in which, among other things, they recommended that the Commission find that DPV2 is needed based on its cost-effectiveness, and SCE withdrew its Phase 1 rebuttal testimony.

cost of natural gas. DRA calculates that, in order for DPV2 to be cost-effective, the wholesale Topock (Arizona) gas price must exceed \$5 per million British thermal units (mmBtu), the gas price differential between Arizona and California must exceed \$0.50 per mmBtu, and Palo Verde must operate. Alternatively, DRA finds that DPV2 would be cost-effective if gas prices exceed \$6.40 per mmBtu, even if there is no California-Arizona price differential.

DRA cautions that the WES Reference Case, while providing DRA's best estimate of DPV2's value, is limited by several identified uncertainties that could be better quantified, but only with significant additional effort. DRA is also concerned that some important uncertainties regarding modeling methods and assumptions may not have been identified, and cautions further that paradigm shifts in the energy market could render the DPV2 project uneconomic.

d) Other Parties

TURN presented testimony in Phase 1 that primarily addressed economic methodology issues that we have resolved in D.06-11-018. In its opening brief in Phase 1, TURN states that it agrees with SCE, the CAISO, and DRA that the proposed DPV2 project is likely to be a cost-effective investment for CAISO ratepayers. TURN finds comfort in the fact that DPV2 economics underwent substantial review by different parties using different methods and all concluded that DPV2 would be beneficial.

PG&E, SDG&E, Global Energy, and BAMx made recommendations in Phase 1 regarding the methodology to be used for economic evaluations of transmission projects. However, none of these parties took a position on the cost-effectiveness of DPV2.

3. DPV2 Energy Benefits

In this section, we address several areas of concern regarding the parties' economic evaluations of DPV2. We also describe the CAISO's and DRA's examination of several unlikely but potentially significant contingency scenarios.

a) System Modeling

As we discussed in D.06-11-018, while the CAISO's view is that only network models provide an acceptable level of accuracy, both the network and transportation approaches as employed in evaluating DPV2 have strengths and weaknesses.

A network model such as the CAISO used in its DPV2 evaluation may provide more accurate forecasts of physical flows and locational prices in an LMP market and may identify the resulting congestion and its economic implications with more accuracy compared to a transportation model. However, because most of WECC outside of California uses contract path scheduling, the CAISO makes an "LMP + Contract Path" adjustment to its modeling results to approximate the market paradigm between the Southwest and southern California. While this adjustment has some similarities to SCE's and DRA's contract path approach, the CAISO still forecasts generator dispatch and power flows based on its network simulation. The "LMP + Contract Path" adjustment is, as the CAISO acknowledges, a simple approximation.

The CAISO's "LMP + Contract Path" measure of DPV2 energy benefits to CAISO ratepayers is over three times as large as that derived in the "LMP Only" calculation, as indicated in Table 4 above. As the CAISO suggests, the actual benefits may fall somewhere in this range. Thus, the potentially greater accuracy of the CAISO's detailed modeling of power flows appears to be

overshadowed in the benefit-cost assessment by the degree of imprecision in the CAISO's calculation and allocation of congestion costs between Arizona and southern California.

In comparison to a network model, a simpler transportation model such as SCE and DRA used is computationally faster and allows a more complex analysis of uncertainty. A transportation model generally can permit more sophisticated modeling of generator operation. Despite CAISO concerns, SCE and other parties assert that, with care, a transportation model may be calibrated and validated regarding the effects of power flow complexities such as loop flow on system dispatch, prices, and congestion costs.

SCE describes that it established transfer limits on modeled interzonal transmission paths between Arizona and southern California to approximate how real world power flows on these paths would be limited. SCE used a Southern California Import Transmission nomogram, which quantifies the aggregate allowable electricity flows on the paths into southern California, depending on the amount of generating capacity operating in southern California and the status of the Palo Verde nuclear units. SCE described that, in addition to transportation modeling, it used separate power flow analyses to demonstrate the physical feasibility of DPV2 operation.

It is not possible to determine, based on the record before us, the extent to which modeling differences affected the parties' results. None of the parties benchmarked their modeling efforts to historical experience. Further, the CAISO and SCE/DRA evaluations used different input databases and simulated different market scenarios. The CAISO used a database developed by the Seams Steering Group – Western Interconnection (SSG-WI) with modifications to reflect SCE's system more accurately, whereas SCE and DRA used a database

developed by SCE based on its recent procurement plans. While the CAISO and DRA reported inputs and results for each of the scenarios they simulated, SCE presented only expected value results obtained from its probability-weighted aggregation of the 100 simulations it undertook.

The most useful comparison available in the record that illuminates the effects of modeling differences is for the year 2013, which all parties modeled. SCE's stochastic results, DRA's Deterministic Reference Case, and the CAISO's "medium conditions and no bid markup" base case are roughly comparable. The resulting 2013 energy benefits from the CAISO Ratepayer perspective are summarized in Table 6. The fact that the energy benefits found by DRA fall almost exactly at the midpoint of the CAISO's "LMP Only" and "LMP + Contract Path" range of benefits supports the CAISO's view that market results will lie somewhere between its two estimates. Because SCE's stochastic process captures the higher value of DPV2 under extreme market conditions, we would expect the energy benefits reported by SCE to be significantly larger than the energy benefits that DRA found using base case conditions. The results summarized in Table 6 are consistent with this expectation.

Table 6

DPV2 Energy Benefits in 2013

(CAISO Ratepayer Perspective)
(\$2013 Million)

SCE stochastic results	\$ 146
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CAISO base conditions:

LMP Only	\$ 40
LMP + Contract Path	\$ 137
DRA Deterministic	
Reference Case	\$ 88

As TURN suggested, this limited illumination of differences in the parties' production cost modeling efforts confirms that there is value in having both network and transportation models employed in evaluating DPV2. The fact that the relationships among the energy benefits found by the parties are logical provides some assurance both that the CAISO's "LMP Only" and "LMP + Contract Path" estimates bracket actual energy benefits and that the more simplistic transmission modeling underlying the SCE and DRA analyses may be reasonably reliable. We have greater confidence in the results of the parties' evaluations because SCE, CAISO, and DRA modeling efforts produce consistent estimates of energy benefits.

b) Natural Gas Price Forecasts

Both the overall level of natural gas prices and the California-Arizona differential in delivered gas prices affect the level of DPV2 energy benefits. Additionally, the relative efficiencies of power plants in California and elsewhere will influence the extent to which out-of-state gas generation may displace California generation. The gas price level matters because, if gas-fired generators in Arizona have an efficiency (heat rate) advantage over those in California, the higher fuel efficiency will yield greater economic savings when fuel prices are high. Also, the greater the California-Arizona differential in delivered gas prices, the larger the energy savings will be.

Natural gas price forecasts for 2013 utilized or reported in this proceeding are summarized in Table 7.

Table 7
Natural Gas Price Forecasts
(\$/mmBtu in 2013)

Source	Vintage	Arizona (Topock)	Southern California	California- Arizona Differential
CAISO DPV2 evaluation	Aug. 2004	\$ 5.71	\$ 6.08	\$ 0.37
SCE DPV2 evaluation (Global Insight)	Oct. 2004	\$ 5.27	\$ 5.66	\$ 0.39
SCE Global Insight gas price update	Oct. 2005	\$ 6.26	\$ 6.72	\$ 0.46
DRA DPV2 evaluation (WES Reference Case)	Nov. 2005	\$ 7.23	\$ 7.62	\$ 0.39
DRA gas price update	Jan. 2006	\$ 9.53	—	—

In the system simulations undertaken by the CAISO, variations in gas prices had a greater effect on DPV2 energy benefits than any other market condition considered. The CAISO used a base-case natural gas price forecast published by the California Energy Commission (CEC), and developed “very low” and “very high” forecasts representing the lower 5% and upper 95% confidence levels. The effect of these gas price variations on DPV2 energy benefits is shown in Table 8, for base-case load forecasts and hydro conditions. As expected, the effect of gas prices on DPV2 benefits is not symmetrical, with

high gas prices having a greater effect on DPV2 benefits than would low gas prices.

Table 8

CAISO Evaluations of DPV2 Energy Benefits
with Varying Levels of Natural Gas Prices
(Base-case Load Forecasts and Hydro Conditions, No Market Power)

(\$ Million Nominal)

	Societal	CAISO Ratepayer (LMP Only)	CAISO Ratepayer (LMP + Contract Path)
2008 benefits:			
Low gas prices	\$ 6.76	(\$ 2.41)	\$ 17.07
Base gas prices	42.83	19.81	70.83
High gas prices	85.81	48.79	141.49
2013 benefits:			
Low gas prices	\$ 20.68	(\$ 2.89)	\$ 50.81
Base gas prices	55.50	40.05	137.07
High gas prices	102.45	91.68	240.63

SCE used natural gas price forecasts developed by Global Insight. Compared to the CEC forecasts used by the CAISO, the Global Insight forecasts contain slightly lower gas prices and a higher California-Arizona price difference. Because lower gas prices would tend to make DPV2 look less economic while a larger California-Arizona price difference would tend to make DPV2 look more economic, the extent to which gas price assumptions contribute to the differences in SCE and CAISO results is unclear.

SCE developed a gas price probability distribution function based on historical gas price fluctuations to model uncertainty in future gas

prices. DRA takes issue with the variations in gas prices that SCE modeled, because SCE included the California energy crisis period in the historical gas price data used to estimate future volatility. DRA submits that the events during that period, including market manipulation, suggest that the period's data are not representative of reasonable future market outcomes. DRA undertook a statistical analysis in which it excluded gas price data from the energy crisis period, and found almost 40% lower volatilities in Topock winter gas prices and about 50% higher correlations in winter prices among the gas pricing basins, compared to the relationships SCE assumed in its modeling. DRA did not quantify the impact on DPV2 economic results.

In its WES Reference Case, DRA used a November 2005 forecast of gas prices at Topock for 2009 and 2010. As can be seen from Table 7, DRA's gas price forecasts are higher than those used by the CAISO and SCE, and the Arizona-California price differential used by DRA is higher than that used by the CAISO and the same as the one used by SCE. Because of these differences, DRA's gas price forecasts would tend to make DPV2 look more economic than would the forecasts used by the CAISO and SCE.

SCE provided an October 2005 update to the Global Insight natural gas price forecast, which is included in Table 7. The natural gas prices in this update are higher than those used by the CAISO and SCE, but less than the prices used by DRA in their economic evaluations. The Arizona-California price differential in this forecast is \$0.46 per mmBtu, higher than the differentials used in any of the economic evaluations. DRA provided a late-filed update to its assumed gas price for 2013, using January 16, 2006 Topock futures prices for 2009 and 2010. While no party updated its economic evaluation of DPV2 using these updated gas price forecasts, it is clear that these higher gas prices would increase

the value of DPV2 substantially as long as the Southwest has surplus generation with attractive fuel efficiencies.

c) Mitigation of Market Power

All parties agree that the increased transfer capability added by DPV2 would reduce generators' ability to wield market power through strategic bids above system marginal costs, with resulting ratepayer benefits. Parties disagree regarding the extent to which forecasts of these market power mitigation benefits should be relied upon in determining the likely economic benefits of DPV2.

SCE and DRA did not model strategic bidding or estimate the ability of DPV2 to mitigate generators' market power. These parties express skepticism about the ability to quantify market power mitigation benefits with any degree of reliability. Global Energy states that it would be desirable to analyze the benefits of reducing market power if cost-based studies without strategic bid markups show insufficient project benefits, but submits that the CAISO's approach must be refined and undergo further testing before it can be accepted.

The CAISO simulated generators' exercise of market power via strategic bid markups, using an empirical approach in which it correlated historical market prices above marginal costs with two measures of market concentration. In Table 9, selected results illustrate DPV2 benefits that the CAISO forecasts due to mitigation of market power. To facilitate comparison, this table presents only CAISO scenarios that include base-case forecasts of load, gas prices, and hydro conditions, so that the differences reflect solely the CAISO's modeling of market power. A comparison of the No Market Pricing, i.e., marginal cost-based pricing, and Medium Market Pricing results indicates

annual societal and CAISO ratepayer benefits ranging between \$15 million and \$56 million due to the modeled reduction in producers' market power.

Table 9
CAISO Evaluations of DPV2 Annual Energy Benefits
with Varying Levels of Market Pricing
(Base-case Load, Gas Price, and Hydro Conditions)
(\$ Million Nominal)

	Modified Societal	CAISO Ratepayer (LMP Only)	CAISO Ratepayer (LMP + Contract Path)
2008 benefits:			
No market pricing	\$ 42.89	\$ 19.81	\$ 70.83
Medium market pricing	58.85	37.87	98.74
High market pricing	71.12	54.82	124.50
2013 benefits:			
No market pricing	\$ 55.54	\$ 40.05	\$ 137.07
Medium market pricing	77.43	54.88	193.50
High market pricing	93.86	65.22	237.23

As we would expect, the CAISO reports that the highest DPV2 benefits due to market power mitigation would occur if there are high loads, high gas prices, and dry hydro conditions. The CAISO forecasts that DPV2 would provide large market power mitigation benefits under this combination of extreme conditions, with annual energy benefits generally ranging between \$54 million and \$321 million more with medium market pricing than if no market power is assumed.

We agree that a transmission project such as DPV2 can provide important benefits due to the resulting reductions in market concentration and generator market power. As we recognized in D.06-11-018, the CAISO has made substantial advances in its efforts to forecast strategic bidding and the ability of a transmission upgrade to reduce generators' market power. However, we questioned the manner in which the CAISO used historical data to predict future generator bidding behavior. Among our concerns, the anticipated CAISO LMP-based market, along with strengthened market power mitigation and monitoring, and resource adequacy and capacity requirements, will differ substantially from the historical circumstances that underlie the CAISO's bidding algorithms. We also questioned the reasonableness of the CAISO's use of statistically derived market-wide price-cost markups to approximate individual generators' bid-cost markups. Another concern we expressed in D.06-11-018 is that the CAISO did not verify adequately the predictive ability of its market power model.

Our concerns regarding reliance on the CAISO's estimations of benefits due to DPV2's mitigation of market power are compounded by the difficulties in modeling congestion revenues between the CAISO control area and Arizona. As can be seen in Table 9, the CAISO forecasts much higher market power mitigation benefits in the CAISO Ratepayer (LMP + Contract Path) calculation than in the CAISO Ratepayer (LMP Only) calculation. The compounding effects of the uncertainties regarding the CAISO's estimates of both congestion revenues and market power mitigation increase our reluctance to rely on the estimates of market power mitigation benefits submitted by the CAISO for DPV2. Nevertheless, the CAISO results illustrate the value of DPV2 in reducing producers' ability to elevate prices due to market power.

d) Treatment of Generation Units Owned or Controlled by CAISO-Area Utilities

As modeling simplifications, SCE and the CAISO assume in their economic evaluations of DPV2 that all energy will be bought and sold at spot market prices, and that no new generation will be owned or controlled by CAISO utilities. DRA bases its economic evaluation of DPV2 on modifications to SCE's base case and, thus, also incorporates these assumptions. However, DRA is concerned that both of these simplifications tend to overestimate DPV2 benefits.

The assumption that all energy is bought and sold at spot market prices credits DPV2 with price reductions for all energy sold, to the extent that DPV2 reduces spot market prices. DRA points out that, in reality, much of the utilities' energy needs are met by cost-of-service generation and by power contracts whose costs to ratepayers may be either partially or entirely insensitive to spot market prices.

We agree with SCE that calculating DPV2 benefits as if existing utility-owned generation is sold at spot market prices does not bias the calculated CAISO Ratepayer energy benefits. While the assumption of spot market prices for all utility-owned generation is incorrect, in the calculation of CAISO Ratepayer benefits the resulting (and also erroneous) increase in the utilities' producer surplus is passed on to ratepayers. Thus, the erroneous increases in consumer and producer surpluses due to utility-owned generation offset each other, with no net effect on the calculated CAISO Ratepayer benefit.

DRA is correct that, to the extent that CAISO-area load is served by new utility-owned generation, or through existing or new spot price-hedging contracts with merchant generators or non-CAISO area utilities, the assumption that DPV2 will decrease spot market prices for such power would overestimate energy benefits to CAISO ratepayers. This is because, unlike existing utility-

retained generation, the resulting erroneously assumed increase in producer surplus is not included in the calculation of CAISO Ratepayer benefits and thus does not offset the erroneous increase in consumer surplus. The CAISO's inclusion of market power mitigation benefits for DPV2 amplifies these overestimations of DPV2 benefits in the CAISO's evaluation.

We recognize the inherent difficulties and imprecision in forecasting the nature of future energy sources and the pricing terms by which energy will be sold to CAISO-area utilities. Without knowing the extent to which these modeling simplifications overestimate DPV2 benefits, we consider this uncertainty along with other factors in assessing the likely economic benefits of DPV2.

e) Extrapolation of Energy Benefits After the Study Period

In calculating the value of DPV2 energy benefits, SCE, the CAISO, and DRA extrapolated benefits for the last year simulated and then discounted the future benefits to produce either a present value (SCE and DRA) or a levelized annual value (the CAISO). SCE and DRA modeled WECC system operation and DPV2 energy benefits from June 1, 2009, the anticipated in-service date, through December 2015, and then calculated energy benefits beyond 2015 assuming that annual benefits remain constant in real inflation-adjusted dollars.

Although DPV2 is projected to commence operations in mid-2009, the CAISO conducted its analysis of DPV2 for 2008 and 2013 because the SSG-WI database used in the CAISO's assessment had been developed for the years 2008 and 2013. The CAISO assumes a 1% real (adjusted for inflation) escalation rate for energy benefits after 2013, for the remainder of the assumed economic life.

We are not convinced that DPV2 energy benefits are likely to escalate at 1% in real terms each year after 2013, as assumed by the CAISO. The CAISO justifies this assumption based on expected above-inflation escalation of commodity prices and an anticipated replacement of coal by gas as the marginal electricity source that determines market prices. However, DRA and SCE forecast that, with operation of DPV2, the surplus energy from the Southwest that will displace higher-cost California generation will already be almost exclusively gas-fired, not coal-fired, during the studied 2009 – 2015 period. Additionally, continuation of DPV2 energy benefits beyond the study period is based in significant part on expectations that current locational differences in gas prices and gas-fired generator efficiencies are likely to continue, and that there will continue to be generation surplus in the Southwest and particularly in Arizona. On balance, we find that SCE's and DRA's view that annual DPV2 energy benefits are likely to remain constant in real terms is the more realistic assumption.

As indicated in a sensitivity calculation performed by the CAISO, use of an assumption that annual DPV2 benefits will remain constant in real terms after 2013, rather than escalate faster than inflation, would decrease the levelized energy benefits and benefit-cost ratios that the CAISO calculated for DPV2 by about 9%.

f) Contingency Analyses

The CAISO and DRA evaluated the economic impacts of several potential market conditions whose likelihood of occurrence may be too low and uncertain to warrant inclusion in benefit-cost ratios. Although individually unlikely, these contingency events could have a significant effect on the cost-effectiveness of DPV2 if they do occur. Such contingency analyses are useful in

that they shed light on the extent to which DPV2 may provide insurance value for high-impact, low-probability events. They also examine downside risks that unexpected market developments may render DPV2 uneconomic.

For DPV2, the CAISO analyzed eight contingency scenarios representing major transmission or generation outages or additions. In these contingency cases, the CAISO used base-case (medium) demand, gas price, hydro, and market (bid markup) conditions. The impacts of these contingencies on calculated 2013 energy benefits are summarized in Table 10.

Table 10

CAISO Evaluation of DPV2 Energy Benefits in 2013
Under Specified Contingency Conditions
(Base-case Load, Gas Price, and Hydro Conditions)
(\$2013 Million)

	Societal Perspective	Modified Societal	CAISO Ratepayer (LMP Only)	CAISO Ratepayer (LMP + Contract Path)
Base-case conditions	\$ 58.83	\$ 77.43	\$ 54.88	\$ 193.50
Add 1,200 MW of gas-fired combined cycle at Palo Verde	85.01	114.52	127.58	291.87
Add 2,400 MW of gas-fired combined cycle at Palo Verde	91.39	122.45	184.03	338.52
Mountainview plant out of service	58.85	92.95	77.95	267.30
Mohave coal plant in service	73.68	96.21	104.22	242.96
San Onofre nuclear plant out of service	85.82	134.10	145.74	380.68

Pacific DC intertie out of service	63.80	84.73	51.92	214.81
10% lower transfer capability for Paths 49 and 66	61.53	80.65	99.59	123.99
Retirement of 3 units in SCE control area	56.51	74.11	43.75	191.39

Because the two versions of CAISO Ratepayer benefits reported by the CAISO only bracket expected benefits with some inaccuracy, the reported Societal and Modified Societal benefits are more instructive in our consideration of the CAISO's contingency scenarios. The Societal benefit provides an indication of WECC-wide energy savings with no market power mitigation attributed to DPV2, whereas the difference between the CAISO's Societal and Modified Societal results indicates market power reduction benefits that the CAISO attributes to DPV2.

The first two of CAISO's contingency scenarios consider the construction of new combined cycle plants in Arizona whose power could be transported over DPV2. It is expected that new gas-fired plants could be constructed with significant cost savings in Arizona. With assumed California-Arizona gas cost differences, these contingency scenarios indicate that access to this relatively inexpensive generation would provide significant energy benefits, with the first 1,200 MW plant increasing DPV2's Societal benefits by about 45%. It is informative, however, that DPV2 would provide only marginal additional energy benefits if 2,400 MW rather than 1,200 MW of new gas capacity is constructed in Arizona.

In three contingency scenarios, the CAISO considers generation reductions in SCE's service area, with the identified plants being out of service

for the entire year. The additional benefits of DPV2 if the Mountainview plant is out of service appear to lie in its ability to thwart generators' exertion of additional market power, since the Societal benefits that exclude market power remain almost unchanged from the CAISO's base-case results. DPV2 would be more valuable during a complete outage of the San Onofre units.

In two scenarios, the CAISO considers transmission limitations. The value of DPV2 as insurance against an outage of the Pacific DC intertie or a reduction in the transfer capability of Path 49 (east of the Colorado River) and Path 66 (the California-Oregon intertie) appears limited.

DRA evaluates eight sensitivity and contingency cases, based on the Deterministic Reference Case that is a modification of SCE's base case. DRA reports the impacts of these contingencies on energy benefits for CAISO ratepayers for each year between 2009 and 2015. The average annual impacts of each of these contingencies are summarized in Table 11.

Table 11

DRA Evaluation of DPV2 Energy Benefits
Under Specified Contingency Conditions

(CAISO Ratepayer Perspective)
(2009 - 2015 Average, \$2004 Million)

Deterministic Reference Case	\$ 56.4
Palo Verde out of service	37.2
No Arizona-California gas price differential	48.7
Stirling solar installation	93.8
Postponement of California retirements	58.0

Alternative Arizona expansion	57.1
San Onofre out of service	90.8

DRA's Palo Verde outage scenario assumes that all three Palo Verde nuclear units are out of service for the entire study period. DRA reports that this would reduce DPV2 energy benefits to CAISO ratepayers by about one-third, compared to the otherwise identical Deterministic Reference Case, as power flows out of California to the overall benefit of Arizona ratepayers. DRA's "no gas price differential" scenario assumes that there is no gas price differential between Arizona and southern California. This would reduce CAISO ratepayer benefits by about 14%.

In the Stirling Solar scenario, DRA assumes that a 1,000 MW Stirling solar dish installation interconnects at the potential Midpoint substation near Blythe. DRA reports that this would increase DPV2 energy benefits by about 66%, largely because the solar installation would provide most of its output during daytime peak hours when the value of power will be high and surplus generation in Arizona is likely to be low.

DRA's California Retirement Postponement case assumes that 3,108 MW of California generation that is slated for retirement between 2006 and 2015 is not retired during the study period but instead remains in service. DRA finds that this would produce a very slight increase in DPV2 energy benefits.

In the Alternative Arizona Expansion case, DRA replaces 800 MW of generic coal plant addition that SCE assumes will be added in Arizona in 2013 and 2014 to maintain needed reserve margins. DRA replaces this capacity with 850 MW of gas-fired peaking and cycling capacity, to assess whether new peaking and intermediate capacity in Arizona would be more beneficial than addition of baseload generation. This produces a very slight

increase in projected DPV2 benefits. Finally, like the CAISO, DRA evaluates a scenario in which both San Onofre units would be out of service for the study period. DRA's analysis indicates that DPV2 energy benefits to CAISO ratepayers would increase by 61% with the San Onofre outage.

The CAISO and DRA contingency analyses complement the evaluations of more likely market conditions, and enhance our ability to assess the value of DPV2. More exploration of conditions that could adversely affect DPV2's cost effectiveness would have been helpful. However, the studied contingency events confirm that the energy benefits of DPV2 may be enhanced considerably if the availability of surplus energy in the Southwest is increased or, to a lesser extent, if supply is removed from California.

4. DPV2 Non-energy Benefits

SCE and the CAISO attribute certain non-energy benefits to DPV2 that they include in the reported benefit-cost ratios. SCE reports (see Table 1 in Section III.A.2.a) that inclusion of DPV2 in transmission revenue requirements will increase SCE's transmission revenues from wheeling and Existing Transmission Contracts by \$28.1 million on a net present value basis. SCE also reflects that the energy savings realized due to DPV2 will reduce ratepayer charges for franchise fees and uncollectibles, a forecasted net present value savings of \$13.0 million.

The CAISO's economic evaluation includes significant non-energy benefits, which are shown in Table 4 in Section III.A.2.b. The largest non-energy benefit reported by the CAISO arises due to system operational savings. The CAISO projects that DPV2 will avoid the need to start and run at minimum load substantial amounts of high-cost generating capacity in southern California that would be needed otherwise to protect against outage contingencies for major

transmission lines or nuclear units. The CAISO explains that the resulting \$20 million levelized annual benefit arises largely from avoidance of Minimum Load Compensation Payments to the uneconomic generators.

The CAISO also reports capacity benefits totaling \$6 million per year for CAISO ratepayers and \$12 million per year from the Societal perspective. These benefits reflect the CAISO's assessment of the value of the 1,200 MW of firm import capability added by DPV2. The CAISO assumes that capacity prices are capped at the cost of new peaking units. Based on its assessment that capital and fixed operating costs for a peaking unit are significantly less in Arizona than in California,¹¹ the CAISO assumes that the cost benefit of constructing peaking capacity in Arizona would be split equally between the buyers and sellers of capacity. The CAISO decreases the maximum savings benefit by an additional one-third to provide "a more conservative estimate" of the capacity cost savings attributable to DPV2, and obtains a total \$12 million annual benefit.

The CAISO finds that operation of DPV2 will yield a net reduction in transmission losses, producing \$1 million of levelized annual benefits to California ratepayers (\$2 million on a Societal basis). The CAISO also reports a reduction in nitrogen oxide (NOx) emissions costs, based on lower emissions by new combined cycle plants in Arizona compared to emissions of older plants in California. The CAISO calculates \$1 million of levelized benefits, based on the

¹¹ For simple cycle combustion turbines, the CAISO estimates that capital and fixed operating costs would be about 30% higher in California than in Arizona. This conclusion is based on assumptions that California has 43% higher labor costs, 67% higher land costs, and, accounting for most of the differential, air emission and water control technology costs that are more than triple the costs in Arizona.

emissions reductions and the assumption that the value of NOx credits will be higher in California than in Arizona.

We have concerns regarding the capacity value that the CAISO attributes to DPV2. While there currently is excess summer peak capacity in the Southwest, forecasted growth in that region is such that most, if not all, of the excess capacity would be needed to meet summertime needs in the Southwest by the time DPV2 is operational. In its updated evaluation of DPV2, SCE forecasts that no existing Arizona capacity would be available to provide firm capacity to California when DPV2 comes online. The WECC forecasts a regional reserve margin for the Southwest of 21% in 2008, declining to 19% in 2013. Thus, it appears likely that DPV2 would be able to deliver 1,200 MW of firm summer peak capacity to California only if additional capacity is built in Arizona for that purpose.

If additional capacity were to be built in Arizona to provide firm capacity to California, it is unclear whether peakers or combined cycle plants would be more economical. The DRA and SCE evaluations indicate that, while Arizona's existing capacity may be needed to meet local summer peaks by the time DPV2 comes online, Arizona is projected to maintain significant excess gas-fired capacity in winter that can be used to provide economical energy to California. The Southwest is expected to continue to have surplus low-cost generation in winter because winter peaks there are low compared to summer peaks. Because of this, both SCE's and DRA's analyses indicate that the bulk of DPV2's energy benefits would accrue in winter months, particularly in on-peak hours of winter months. Thus, a potential builder of new generation in Arizona would need to consider this competition for seasonal energy production in deciding whether to build new generation for export to California.

We recognize that difficulties in siting new generation in California, combined with cost differentials that may exist, may motivate generators to construct outside of California to meet California capacity needs. However, for the above reasons, we believe that it is speculative to assume that new power plants will be constructed in Arizona such that the full 1,200 MW transfer capability of DPV2 will be used to deliver firm summer peak capacity to southern California.

In summary, the CAISO's forecasts of the value of the non-energy benefits of DPV2 may be reasonable. However, we are not convinced that the full capacity benefit the CAISO attributes to DPV2 will be realized.

5. DPV2 Costs

a) Costs of Proposed Route and Authorized Route Alternatives

SCE provided cost estimates for its proposed route for the DPV2 project and for several alternative routes considered during the proceeding. No other party contested or presented evidence regarding SCE's cost estimates. As a result, we accept SCE's cost estimates for the DPV2 route alternatives authorized in this decision.

SCE's cost estimate for its proposed route for DPV2 is \$577,663,000 in 2005 dollars, including pension and benefits, and administrative and general overheads. This cost estimate must be adjusted to reflect the authorized project route and route segments.

We find in Section IV that the West of Devers 230 kV upgrades included in SCE's proposed project are not feasible, and we authorize SCE to construct the Devers-Valley No. 2 500 kV line instead. Use of Devers-Valley No. 2 instead of the 230 kV upgrades reduces SCE's DPV2 cost estimate to

\$545,285,000. We authorize SCE to terminate the Devers-Harquahala 500 kV line at either the Harquahala power plant, as reflected in SCE's proposed project, or at a new Harquahala Junction that would shorten the route by five miles. SCE estimates that construction of Harquahala Junction would reduce costs by \$24,080,000. In the vicinity of the Alligator Rock ACEC, we authorize SCE to construct DPV2 either adjacent to DPV1, as in SCE's proposed route, or using the Alligator Rock—North of Desert Center alternative. SCE estimates that the Alligator Rock—North of Desert Center route segment would add \$8,952,000 to the cost of DPV2, including Allowance for Funds Used During Construction (AFUDC). While not provided by SCE, we estimate based on the amount of AFUDC in other SCE cost estimates that a comparable cost estimate for the Alligator Rock—North of Desert Center segment excluding AFUDC would be approximately \$8,284,000.

b) Specification of Maximum Reasonable Cost

While the Federal Energy Regulatory Commission (FERC) ultimately will decide how much of the costs for this project SCE may recoup in transmission rates, we have jurisdiction pursuant to § 1005.5(a) and the responsibility to specify in the CPCN a "maximum cost determined to be reasonable and prudent" for the DPV2 project.

We adopt a maximum cost for DPV2 pursuant to § 1005.5(a) of \$545,285,000 in 2005 dollars, including pension and benefits, and administrative and general overheads. This maximum authorized cost is decreased by \$24,080,000 if the Devers-Harquahala line is terminated at Harquahala Junction. The maximum authorized cost is increased by \$8,284,000 if the Alligator Rock—North of Desert Center route segment is used. These costs are in 2005 dollars. As SCE requests, in assessing compliance with these cost caps, SCE may deflate

actual expenditures to their equivalent value in 2005 dollars using the Handy-Whitman Index of Public Utility Construction Costs.

SCE's cost estimates are based on preliminary design work. SCE requests that the Commission authorize it to seek additional cost recovery based on changes in cost estimates due to the adopted mitigation measures and mitigation monitoring program, final design criteria, and other factors.

We believe that SCE included sufficient allowance for contingency costs—almost 15%—to accommodate final design changes, as well as the adopted EMF mitigation, environmental mitigation, and mitigation monitoring program. The contingency budget may also be sufficient to accommodate possible routing changes in the Kofa and Alligator Rock areas, as discussed in Section IV.A. If, upon completion of the final, detailed engineering design-based construction estimates for the authorized project, SCE concludes that the costs will be materially (i.e., 1% or more) lower than the maximum cost we adopt, SCE should submit its updated cost estimate with an explanation of why we should not revise the maximum cost downward to reflect the new estimate. If SCE's final estimate exceeds the maximum cost we have adopted, SCE should seek an increase in the approved maximum cost pursuant to § 1005.5(b), at which time we will assess whether the cost increases affect the cost-effectiveness and need for the DPV2 project.

c) Effect of Route Alternatives on Cost-effectiveness of DPV2

SCE, the CAISO, and DRA based their economic evaluations of DPV2 on the project route proposed by SCE in its application. At the ALJ's request, SCE submitted late-filed exhibits indicating how construction cost changes associated with route alternatives would affect the parties' economic

evaluations of DPV2.¹² Because construction of the Devers-Valley No. 2 500 kV alternative would be less expensive than SCE's proposed 230 kV upgrades west of the Devers substation, this route alternative would increase the benefit-cost ratios for DPV2 by about 3.3%. Similarly, termination of DPV2 at Harquahala Junction in Arizona would be less expensive than the SCE-proposed termination at the Harquahala power plant, and would increase benefit-cost ratios by about 5.0%. SCE did not provide benefit-cost results for the Alligator Rock—North of Desert Center route alternative, but we estimate that this more-expensive alternative would reduce benefit-cost ratios by about 1.5%.

6. Discount Rates

Consistent with our determination in D.06-11-018, it would be appropriate to use SCE's most recently adopted weighted cost of capital as the discount rate in evaluating the benefits of DPV2. In D.05-12-043, the Commission adopted an 8.77% rate of return for SCE for 2006. In D.06-08-026, we granted SCE's request to waive a test year 2007 cost of capital application, so that the authorized 8.77% rate of return is also applicable during 2007.

SCE and DRA discounted future DPV2 benefits and costs to 2005 using a 10.5% nominal discount rate, stated to be SCE's most recently established incremental cost of capital. The CAISO discounted future DPV2 benefits and costs at a real discount rate of 7.16%, stated to equal SCE's weighted cost of capital. Assuming the long-term annual inflation rate of 2.28% used in SCE's assessment, this would equate to a nominal discount rate of 9.44%.

¹² We address DPV2 project costs in Section III.A.5 and DPV2 route alternatives in Section IV of this decision.

Based on the yearly DPV2 energy benefit and cost results that SCE reported in Exhibit 6, use of an 8.77% discount rate rather than a 10.5% discount rate would increase the CAISO Ratepayer perspective benefit-cost ratio that SCE calculated from 1.71 to 1.88, an increase of about 10%. The record does not contain comparable yearly results for the DRA and CAISO evaluations of DPV2. However, with use of an 8.77% discount rate, we would expect a similar percentage difference in the benefit-cost ratios found by DRA. It appears that the impact of an 8.77% discount rate on the benefit-cost ratios found by the CAISO would be less than 5%, since the discount rate it used was closer to the currently authorized rate of return.

7. Load Forecasts and Baseline Resource Plans

As we noted in D.06-11-018, the applicant's resource plan and assumptions about transmission and generation resources in other portions of the study area are important components of the economic evaluation of a proposed transmission project.

In its economic evaluation of DPV2, SCE used the system database it maintains for the Commission's long term procurement proceeding, but updated its forecasts for loads, natural gas prices, and available hydro generation. SCE included increased energy efficiency, demand response, and renewable resources sufficient to meet the State's renewables goals. SCE determined that generation should be retired based on published retirement dates, if a plant reaches a life of 55 years, or if retirement is planned due to air quality restrictions. DRA used SCE's resource plan and load forecast assumptions in its own economic evaluation of DPV2.

The CAISO modeled the transmission and generation system using the SSG-WI database, which the CAISO modified in consultation with SCE to

improve its representation of the SCE system. The CAISO describes that it added generation resources to the SSG-WI database to reflect renewables goals in each state, and added new gas-fired generation, primarily combined cycle plants, in each of the WECC areas as needed to maintain at least a 15% planning reserve margin. The CAISO also states that it added a few new thermal units that were economically attractive after renewable and capacity adequacy standards were met.

No party takes issue with the load forecasts and resource plans used in the economic evaluations of DPV2. DRA calls attention to one difference between the baseline resource plans developed by SCE and the CAISO: the CAISO included series capacitor upgrades sponsored by the Salt River Project, referred to as the East of River (EOR) 9,000+ project. SCE's (and therefore DRA's) assessment did not include these upgrades. The effect of this exclusion is that the SCE and DRA assessments reflect a lower baseline transfer capability, potentially translating into higher energy benefits attributed to the 1,200 MW increase in transfer capability due to DPV2. However, DRA did not make a recommendation regarding whether SCE should have included the EOR 9,000+ upgrade in its baseline resource plan. In their economic evaluations of DPV2, no party assumed that construction of DPV2 would affect the resource plans in other respects.

B. Nonquantified DPV2 Benefits

Some potential economic benefits of DPV2 are difficult to quantify. Each of the three economic evaluations of DPV2 discusses certain potential benefits in qualitative terms. Most of the potential benefits discussed qualitatively by one party were addressed quantitatively by another party in its evaluation of expected energy benefits (mitigation of market power), non-energy

benefits (operational and capacity values, value of reduced emissions and transmission line losses), or contingency value (effects of new generation east of Devers, emergency generation or transmission outages, and gas price fluctuations).

In addition, parties credit DPV2 qualitatively with potential benefits to the extent it allows earlier retirements of aging power plants, encourages fuel diversity, allows reserve sharing, and/or increases voltage support for Southern California. The parties' discussion of these potential additional benefits of DPV2 is useful in extending our attention beyond the limits of the quantitative analysis. We consider these factors in our consideration of DPV2's economic value, even though their potential benefits have not been measured.

C. Alternatives to DPV2 and the No Project Alternative

Our evaluation of whether SCE should be granted a CPCN to construct the DPV2 project would not be complete without consideration of alternative resources that could be added or other actions that could be taken in lieu of the proposed project. Additionally, in accordance with CEQA requirements, the Final EIR/EIS evaluates the No Project alternative. In essence, the No Project alternative examines impacts if the proposed project, or a variation thereof, is not approved and built.

1. Alternatives to DPV2

In D.04-12-048, the Commission directed SCE and the other investor-owned utilities to follow the loading order in the Energy Action Plan (EAP). The

updated EAP II¹³ requires that the investor-owned utilities integrate all cost-effective energy efficiency into their resource plans. EAP II also requires inclusion of reasonable amounts of demand response and the procurement of renewable generation to the fullest extent possible. The Renewable Portfolio Standard (RPS) program as originally established required 20% of electricity sales to come from renewable sources by 2017, but that 20% goal has been accelerated from 2017 to 2010.

In D.04-12-048, the Commission found SCE's long term procurement plan to be reasonable, subject to revision to include energy efficiency targets as adopted in D.04-09-060 and demand response programs proposed for implementation in Rulemaking 02-06-011. In its economic evaluation of DPV2, SCE includes the resources that are in its long term procurement plan, with increased energy efficiency, demand response, and renewable resources sufficient to meet the State's RPS goals. We agree with SCE and the CAISO that additional development of energy efficiency, demand response, and renewable generation beyond the targets already set is not a feasible or cost-effective alternative to DPV2, as discussed more fully below.

In this proceeding, DRA and the CAISO assess possible development of combined cycle generation in southern California as an alternative to DPV2. The Final EIR/EIS suggests that new combined cycle plants could be built near the Devers, Etiwanda, and/or Valley substations.

¹³ EAP II, a policy statement issued jointly by the Commission and the CEC, established a set of priorities for the energy policy for the State. See <http://www.cpuc.ca.gov/PUBLISHED/REPORT/50480.htm>.

DRA compares the addition of five 250 MW gas-fired combined cycle generators in California to construction and use of DPV2 to tap surplus generation from existing gas power plants in Arizona. DRA reports that ratepayers could finance construction of the California plants under 10-year power purchase agreements for approximately the same present value cost as the cost of building DPV2. DRA calculates that, with the new California gas generation, CAISO ratepayer benefits would be only 61% of the ratepayer benefits produced by accessing surplus Arizona energy via DPV2. DRA concludes that the alternative of investing additional capital in new California generation appears to be less preferable than building DPV2.

The CAISO compares the cost of building a new combined cycle plant in California with the cost of building a comparable new plant in Arizona to provide power to California using DPV2. The CAISO estimates that construction and operating costs for a combined cycle plant built in Arizona would be about 10% less than costs for a California plant. It finds that baseload power from such a plant in Arizona, delivered to California via DPV2, would be about 4% more expensive than power from a new gas plant in California, due to allocation of a share of DPV2 costs. The CAISO cautions, however, that its California combined cycle cost estimate does not include transmission or gas interconnection costs, which it could be substantial.

The CAISO submits that California needs to add 5,000 MW or more in the next five years due to load growth and generation retirement. In its opinion, both additional generation in southern California and inter-regional transmission upgrades including DPV2 should be pursued. SCE concurs with the CAISO that both generation and transmission options are needed, and submits that non-transmission alternatives could not meet all of the project

objectives and/or could not be counted on to develop fast enough or in enough magnitude to avoid need for the DPV2 project.

We agree with SCE and the CAISO that there is need to pursue a range of resources, including inter-regional transmission, in-state generation, and other alternatives. In D.06-07-029, the Commission found that, in order to maintain adequate capacity and reserves throughout the state, 3,700 MW of new generation must come on line beginning in 2009. The required new resources are in addition to the expected investment in energy efficiency and renewable generation, and are in addition to planned transmission upgrades. As the CAISO points out, new or refurbished generating units are likely to be needed in southern California for reliability and operational purposes, but siting opportunities may be limited. At the same time, an expanded transmission system would increase access to competitively priced energy, provide more flexibility in operating the grid, and increase grid reliability. We conclude that, even with the emphasis on energy efficiency, demand response, renewable resources, and distributed generation, investments in both transmission and conventional power plants also will be needed.

As SCE and the CAISO describe, several potential transmission projects that could increase transmission transfer capability between California and the Southwest were evaluated. The STEP process screened alternative transmission upgrades and undertook technical and economic studies to develop a consensus expansion plan, which includes both DPV2 and upgrades to series capacitors for DPV1 and the Southwest Power Link. Based on SCE's and the CAISO's showings, we find that the range of potential transmission alternatives has been considered carefully and that DPV2 is the preferred new transmission alternative to provide access to lower-cost energy in the Southwest.

2. The No Project Alternative

Under the No Project alternative considered in the Final EIR/EIS, DPV2's 1,200 MW of transfer capability would not be added, and the existing transmission grid and power generating facilities would continue to operate. To serve the expected continued growth in electricity consumption and peak demand within California, additional electricity would need to be generated within California or imported into California by existing transmission facilities. In the No Project alternative, there could be supply-side actions, including accelerated development of conventional, renewable, and distributed generation, or other major transmission projects. Additional energy conservation or load management could also be pursued.

The Final EIR/EIS states that the continued operation of existing gas-fired turbine generators and construction of new generation and transmission lines would have long-term environmental impacts including substantial air emissions and ongoing noise near the generators, and visual impacts depending on the locations of new transmission lines and generators. The Final EIR/EIS does not find that the No Project alternative would be environmentally preferable to the Environmentally Superior configuration of the DPV2 project.

As we discuss above, because of both the magnitude of resource additions that are needed and the operational, system reliability, and other benefits that transmission upgrades such as DPV2 would provide, the No Project scenario is not a desirable alternative to the DPV2 project.

D. Discussion

The Commission must take into account a wide range of factors consistent with §§ 1001, 1002, 1005.5, GO 131-D, and other statutory and regulatory requirements in evaluating whether to authorize DPV2. As we

explain in this section, there is adequate record support that SCE should be granted a CPCN for the DPV2 project.

As we describe above, SCE, the CAISO, and DRA performed separate economic evaluations of the DPV2 project, using different methodologies, assumptions, and scenarios. All three parties reach similar conclusions that DPV2 would be cost-effective for CAISO ratepayers, with DPV2 likely to provide significant economic benefits in excess of its costs over a wide range of market conditions. SCE reports a likely benefit-cost ratio of 1.71 from the CAISO Ratepayer perspective (Table 1). The CAISO finds that the benefit-cost ratio from the CAISO Ratepayer perspective will be between 1.25 and 3.34, and that the benefit-cost ratio from a Societal perspective is either 1.35 or 1.77, depending on whether forecasted market power mitigation benefits are included (Table 4). DRA's evaluation in its WES Reference Case finds a CAISO Ratepayer benefit-cost ratio of 1.31 (Table 5).

In addition to quantified economic benefits, the parties cite several other benefits as further support for their recommendations that the Commission authorize SCE to construct DPV2. In assessing need for the project, we must weigh the significant economic and other benefits that are expected to accrue against the undesirable environmental effects that DPV2 may cause.

In concluding that DPV2 should be authorized, the parties focus on the economic benefits that would accrue because of the 1,200 MW increase in the transfer capability between California and Arizona. Access to Southwest generation is limited currently by congestion over the transmission interfaces between southern California and the Southwest. The increased access that DPV2 would provide to less expensive generation in Arizona and elsewhere in the

Southwest would allow higher-cost generation in California to be replaced and would reduce the cost of energy to CAISO ratepayers.

In Section III.A.3.a, we describe differences among the parties' production cost modeling of the energy benefits of DPV2. As we found in D.06-11-018, both the network model used by the CAISO and the transportation model used by SCE and DRA in this proceeding have strengths and weaknesses. While a network model such as used by the CAISO has the potential for greater accuracy in LMP-based markets, such a model has difficulties in modeling dispatch and congestion costs on inter-regional transmission projects like DPV2. This limitation reduces the precision of the CAISO's estimates of DPV2 energy benefits. As reflected in Table 4 above, the CAISO was only able to bracket expected CAISO ratepayer benefits with a wide range of uncertainty. At the same time, concerns have been raised regarding SCE's validation of the more simplified transportation modeling used in SCE's and DRA's evaluations of DPV2. In light of these concerns, we conclude that there is value in the use of both network and transportation models in evaluating DPV2. As TURN suggests, we have greater confidence in the results of the parties' evaluations since SCE, the CAISO, and DRA modeling efforts produce comparable and consistent results.

In Section III.A, we have identified several aspects of the economic evaluations that, individually, may tend to bias DPV2 benefit estimates either positively or negatively. There are several ways in which parties may have underestimated the likely value of DPV2.

First, natural gas prices have increased, particularly from the levels used in the SCE and CAISO economic evaluations. DRA found that DPV2 would be cost-effective if Arizona gas prices reach \$5.00 per mmBtu in 2010 with a

California-Arizona gas price differential in excess of \$0.50 per mmBtu, or if gas prices reach at least \$6.40 even with no California-Arizona price differential.

Second, SCE and DRA did not reflect that some producers may be able to markup bids above marginal costs in an exercise of market power. We agree that, by increasing the amount and diversity of suppliers with access to the California market, DPV2 will enhance competition and reduce the potential for generators to exert market power. While we are not convinced that the CAISO's market power estimations are reliable, it is clear that DPV2 would provide some amount of market power mitigation, with benefits to CAISO ratepayers.

In its WES Reference Case, DRA evaluated DPV2 benefits using only base-case market conditions. Due to asymmetry in how energy costs are influenced by variations in system conditions, consideration of the effects of volatility in factors such as loads, gas prices, and hydro conditions likely would yield a higher expected value of DPV2 energy benefits, compared to an evaluation of benefits looking only at expected market conditions. As an example, high gas prices have a greater effect on DPV2 benefits than would low gas prices, as illustrated in Table 8.

Additionally, the CAISO and DRA benefit calculations do not recognize that wheeling customers and entities with Existing Transmission Contracts would contribute to DPV2 cost recovery, or that revenue requirements for franchise fees and uncollectibles would decline due to energy cost reductions attributed to DPV2. Similarly, SCE and DRA evaluations do not include economic benefits arising due to operational benefits, emissions savings, or reduced transmission losses, as found by the CAISO.

Another source of potential underestimation of DPV2 benefits is that the discount rates that SCE, the CAISO, and DRA used are all higher than SCE's

cost of capital. Consistent with D.06-11-018, use of a discount rate equal to 8.77%, the cost of capital authorized most recently for SCE in D.05-12-043, would increase benefit-cost ratios as reported by SCE and DRA by about 10%. An 8.77% discount rate likely would increase DPV2 benefit-cost ratios reported by the CAISO somewhat less than 5%.

Other choices in the parties' economic evaluations may tend to overestimate the value of DPV2. As discussed in Section III.A.3.d, the SCE, CAISO, and DRA evaluations assume that all energy is bought and sold at spot market prices, and that no new generation will be owned or controlled by CAISO utilities. These simplifying assumptions overestimate the value of DPV2 in decreasing spot market prices, to the extent that CAISO-area load will be served by new utility-owned generation, or by new or existing spot price-hedging contracts with merchant generators or non-CAISO area utilities.

As another concern, we are not convinced by the CAISO's assumption that annual DPV2 benefits will increase by 1% in real terms (adjusted for inflation) each year after 2013. As we describe in Section III.A.6, the more realistic assumption that annual DPV2 energy benefits will remain constant in real terms after 2013 would decrease the CAISO's benefit-cost ratios for DPV2 by about 9%.

Nor are we persuaded that the capacity benefits that the CAISO attributes to DPV will be realized, for reasons we discuss in Section III.A.6. With the expectation that generation capacity that meets the Southwest's summertime peak needs will continue to allow significant amounts of economical surplus energy to be available to California during non-peak periods, it is not clear that DPV2 will provide sufficient incentives to cause additional generation to be built east of Devers to provide firm capacity to California.

Finally, we note that the cost of DPV2 may change depending on routing choices and other factors, which would have a direct impact on the project's cost-effectiveness. As described in Section III.A.5, construction of the authorized Devers-Valley No. 2 route alternative is expected to increase benefit-cost ratios for DPV2 by about 3.3%. Termination of the DPV2 project at Harquahala Junction could increase benefit-cost ratios by about 5.0%, whereas use of the Alligator Rock—North of Desert Center route alternative could reduce benefit-cost ratios by about 1.5%.

Based on the parties' economic evaluations of DPV2 submitted in this proceeding, we conclude that DPV2 would provide significant economic benefits for CAISO ratepayers. It is our judgment that the described concerns about individual aspects of the parties' economic evaluations, taken together, strengthen rather than weaken this conclusion.

The benefit-cost ratios reported by SCE, CAISO, and DRA do not include certain potential benefits of DPV2 that do not lend themselves to economic quantification. DPV2 would expand the interstate regional transmission network and increase its reliability. With DPV2, the CAISO would have more flexibility in operating California's transmission grid and more options to respond to transmission and generation outages. Additionally, as indicated by several contingency scenarios reported in this proceeding, DPV2 would provide insurance value as an economic hedge against low-probability, high-impact events that could affect the availability and price of energy to southern California, including unexpected transmission and generation outages or increases in natural gas prices.

DRA voices a concern that the parties' economic evaluations do not reflect the possibility that there may be an unanticipated long-term trend away

from recent system conditions, which DRA calls a paradigm shift. We agree that there is a risk that DPV2 would prove uneconomic due to unanticipated shifts in market conditions. However, DPV2 would also provide insurance value against other unexpected events that could greatly increase costs to CAISO ratepayers.

The record contains limited information regarding potential economic impacts of DPV2 in Arizona and other areas outside of California. SCE's 2004 economic evaluation shows negative energy benefits for Arizona (Table 3), such that Arizona electricity costs could increase slightly with DPV2's operation. However, SCE's evaluation assumes that no additional generation is built in Arizona to take advantage of the 1,200 MW of transfer capability added by DPV2. Nor does SCE's evaluation recognize that, with DPV2, the increased ability to pool resources could provide benefits to Arizona as well as to California. The increased transfer capability could be used to provide emergency support to Arizona as well as to California during unanticipated conditions such as the loss of a major generating facility or of another high-voltage transmission line, or during natural disasters. DRA's contingency scenario assessing a Palo Verde outage indicates the benefits of DPV2 to Arizona in that event.

In Section III.C, we determine that energy efficiency, demand response, and renewable generation do not hold sufficient near-term promise to provide a feasible or cost-effective alternative to DPV2. Nor would they offer the operational and other system benefits expected due to DPV2. New transmission and generation options, in addition to demand side resources, should be pursued to meet the need for new energy supply in southern California. We agree with SCE and the CAISO that DPV2 is the preferred new transmission project to increase transfer capability between southern California and Arizona.

As we describe in Section IV below, even with the mitigation measures made a condition of the CPCN, the DPV2 project would have significant unmitigable effects on visual resources, wilderness and recreation resources, cultural and paleontological resources, agriculture, noise levels, and air quality. Weighing the economic and other benefits that we expect DPV2 to provide and the identified environmental effects, we conclude that the substantial benefits expected due to DPV2 outweigh the environmental impacts of the project. We conclude that the DPV2 project is needed and in the public interest, and that we should grant SCE a CPCN to construct the DPV2 project, subject to the routing modifications and mitigation measures adopted in this decision.

IV. DPV2 Route Alternatives

In its application and PEA, SCE identified several alternative routes for portions of the DPV2 project. During the EIR/EIS scoping process, the Commission and BLM environmental team identified additional alternatives, including minor routing adjustments, entirely different transmission line routes, alternative energy technologies, and non-wires alternatives. Alternatives were then screened according to CEQA and NEPA guidelines to determine the alternatives to carry forward for analysis in the EIR/EIS. The environmental team rejected 26 alternatives that did not meet CEQA and NEPA criteria for analysis. The Final EIR/EIS provides a detailed analysis of seven alternatives to portions of the Devers-Harquahala segment of the proposed project, and one alternative to the upgrades proposed west of the Devers substation.

Based on comparison of the environmental impacts of the proposed project and alternatives, the Final EIR/EIS identifies the environmentally superior alternatives and the BLM Agency Preferred alternatives as follows:

- The eastern portion of the DPV2 project would begin at the new Harquahala Junction switchyard;
- The proposed project route from the Harquahala Junction switchyard to east of Alligator Rock;
- The Alligator Rock-North of Desert Center alternative to west of Alligator Rock;
- The proposed project route from west of Alligator Rock to Devers substation;
- The Midpoint substation proposed by SCE and the Midpoint substation identified as part of the Desert Southwest project are equally environmentally superior/preferable; and
- The proposed West of Devers upgrades unless determined to be infeasible, in which case the Devers-Valley No. 2 alternative would be constructed.

The Final EIR/EIS evaluated the environmental impacts of the proposed project and alternatives, classifying the impacts as Class I (significant and unavoidable or unmitigable), Class II (significant but mitigable to less than significant), Class III (adverse but less than significant), and Class IV (beneficial). The Final EIR/EIS found that the DPV2 project would have significant unmitigable impacts on visual resources, wilderness and recreation resources, cultural and paleontological resources, agriculture, noise levels, and air quality. In describing potential environmental impacts of the DPV2 project, we focus on the significant unmitigable (Class I) impacts, since we expect that the adopted mitigation measures will eliminate other potentially adverse environmental impacts of DPV2 or allow them to be reduced to less-than-significant levels.

In the following subsections, we address route segments and related alternatives, including the Desert Southwest transmission project as a potential alternative to the portion of the Devers-Harquahala line between a new Midpoint substation and the Devers substation. We then describe broader environmental impacts that arise due to multiple route segments or the DPV2 project as a whole.

A. Devers-Harquahala 500 kV Line

1. Description of Proposed Route

As proposed in SCE's application, the 230-mile Devers-Harquahala 500 kV transmission line would be constructed between the switchyard at the Harquahala generating station near the Palo Verde nuclear generating plant in Arizona and SCE's Devers substation in North Palm Springs, California. For most of the route, this new line would parallel SCE's existing 500 kV DPV1 transmission line. Approximately 102 miles of the line would be located in Arizona and the remainder in California. The Arizona portion of the Devers-Harquahala line would be located in a relatively undeveloped area of the western Sonoran Desert. A large portion of the proposed route in California is located within the Colorado Desert, which is the western extension of the Sonoran Desert. The region consists of mostly native desert habitats.

The Harquahala generating station is approximately 17 miles northwest of the Palo Verde generating station and approximately 49 miles west of Phoenix, Arizona. Departing from the Harquahala switchyard, the proposed DPV2 line would proceed easterly for approximately five miles to SCE's existing DPV1 route. The route would then turn north to parallel DPV1 through the southern end of the Big Horn Mountains, across the Harquahala Plain through the northern end of the Eagletail Mountains, through the Ranegras Plain, and across the northern portion of Kofa. The route would then traverse the La Posa

Plain and the northeastern corner of the Yuma Proving Grounds, then proceed through the central portion of the Dome Rock Mountains and cross the Colorado River and the Arizona-California state line.

There is one location where the DPV2 circuit would be placed on existing DPV1 towers rather than on new towers parallel to the DPV1 line. In Copper Bottom Pass in the Dome Rock Mountains, SCE proposes to place the DPV2 circuit on 13 existing 500 kV double circuit structures built as part of DPV1. SCE explains that double circuit construction was used in the narrow Copper Bottom Pass since there is not room for two single circuit lines. The double circuit towers are already strung with two circuits, with one circuit used for DPV1 and the second currently unused circuit proposed to be used for DPV2.

In California, the DPV2 route would continue to parallel DPV1, generally along I-10, between the town of Blythe at the California-Arizona border to the Devers substation, all in Riverside County. The route would proceed westerly from Blythe into the Palo Verde Valley. SCE describes a new Midpoint substation approximately 10 miles southwest of Blythe as an optional component that may be constructed jointly with the Desert Southwest transmission project proposed by Imperial Irrigation District (IID). The route would cross the Chuckwalla Valley Dune Thicket ACEC and, near Desert Center, the Alligator Rock ACEC. It would skirt the southern edge of Joshua Tree National Park and continue to parallel DPV1 to the Devers substation.

SCE proposes to construct a new optical repeater facility three miles west of Blythe, California within the DPV2 right of way. SCE also proposes to construct two series capacitor banks adjacent to existing DPV1 series capacitor banks, one in Arizona approximately 55 miles west of the Harquahala switchyard and one in California approximately 64 miles east of Devers. SCE

proposes to install Special Protection Scheme relays at the Devers substation in California and the Palo Verde, Hassayampa, and Harquahala substations in Arizona. Other modifications would also be needed within the Harquahala and Devers substations. SCE also proposes to construct telecommunications systems related to the proposed project, including a new telecommunications facility on Harquahala Mountain adjacent to an existing facility of similar design.

2. Route Alternatives Near Palo Verde Generating Station

As proposed in SCE's application, the Devers-Harquahala line would begin at the switchyard of the Harquahala generating station, and would depart the Harquahala switchyard to the east paralleling the existing Harquahala-Hassayampa 500 kV line. Three route alternatives analyzed in the Final EIR/EIS involve different ways to terminate the DPV2 project in this area.

The Harquahala Junction alternative would entail construction of a new switching station east of the Harquahala generating station, at the point where the existing Harquahala-Hassayampa and DPV1 transmission lines diverge (a location called "Harquahala Junction"), which would become the eastern termination point of the DPV2 project. This alternative would avoid the need to construct the five-mile segment of the proposed project from the Harquahala switchyard to the new Harquahala Junction. SCE estimates that the Harquahala Junction alternative would cost \$14.6 million less than termination of DPV2 at the Harquahala switchyard, due primarily to avoidance of five miles of transmission line construction.

The Harquahala-West alternative would begin at the Harquahala generating station switchyard. Rather than departing the Harquahala switchyard to the east, this alternative would depart the switchyard to the west

and traverse west for approximately 12 miles to the El Paso natural gas pipeline corridor. The transmission line would proceed northwesterly along the pipeline corridor for approximately nine miles to the intersection with the DPV1 transmission line. This route would be 14 miles shorter than the proposed route.

In the Palo Verde alternative, the DPV2 line would terminate at the Palo Verde nuclear generating station switchyard instead of the Harquahala generating station switchyard. This alternative would avoid the need to construct the 5-mile segment between the Harquahala generating station switchyard and the Harquahala Junction, but would add construction of 14.7 miles of new transmission line parallel to DPV1 from Harquahala Junction to the Palo Verde switchyard.

The Final EIR/EIS concludes that the Harquahala Junction Switchyard alternative is environmentally preferred because it would require the least distance of transmission line construction outside of existing corridors and it would eliminate effects to agricultural lands.

SCE has an option agreement with the Harquahala Generating Company that would allow it to acquire the Harquahala switchyard and the existing Harquahala-Hassayampa 500 kV transmission line. SCE reports that it has been discussing an arrangement with Arizona Public Service and the Harquahala Generating Company whereby the three companies would share the Harquahala-Hassayampa 500 kV transmission line. This joint arrangement would allow Arizona Public Service to connect its planned TS-5 transmission line at the Harquahala Junction.

SCE should terminate DPV2 at a new Harquahala Junction or the Harquahala switchyard, subject to approval by the Arizona Corporation Commission and any other needed authorizations. Because this alternative is

less costly than the proposed project and is also the environmentally preferred alternative, SCE should pursue good-faith efforts to reach a commercially reasonable agreement and seek the additional authorizations needed for construction of Harquahala Junction. If Harquahala Junction does not receive the needed approvals in Arizona or is otherwise not feasible, SCE may terminate DPV2 at the Harquahala switchyard.

3. Kofa National Wildlife Refuge

The proposed DPV2 route would traverse Kofa for approximately 24 miles, paralleling the DPV1 line approximately 2 miles south of Kofa's northern boundary. The Final EIR/EIS finds that, within Kofa, the proposed project would result in significant unmitigable (Class I) visual impacts and significant impacts on Kofa's recreational value.

In the EIR/EIS process, a preliminary environmental review was undertaken for three alternative route segments that potentially could reduce impacts in Kofa. As a result of greater impacts to recreation and to visual and biological resources, all three alternatives that would avoid Kofa were eliminated from full consideration in the EIR/EIS process. The Final EIR/EIS found that the route through Kofa is the most environmentally preferred.

We take official notice that the USFWS has issued a preliminary Determination of Incompatibility regarding the construction of DPV2 through Kofa as proposed by SCE. If the USFWS rejects the proposed route for DPV2 paralleling DPV1 through Kofa, that route will become legally infeasible. We authorize SCE to construct a route in the Kofa area that is acceptable to the USFWS and other permitting agencies, subject to a showing that the routing modification is not detrimental to the cost effectiveness of DPV2. Consistent with § 1005.5(b), SCE may seek an increase in the maximum cost for the DPV2

project that we find reasonable in Section III.A.5 of this decision, if an alternative route in the Kofa area is expected to cause DPV2 costs to exceed the adopted maximum cost.

4. Alligator Rock Area

BLM has designated the Alligator Rock ACEC for protection of its archeological features. The Final EIR/EIS identifies three potential reroutes in the Alligator Rock area that may reduce impacts to cultural and biological resources in the Alligator Rock ACEC.

a) Proposed Project Route

The proposed route for DPV2 would traverse the Alligator Rock ACEC for approximately 6.8 miles, paralleling the existing DPV1 transmission line. The Final EIR/EIS finds that this proposed route segment would have significant unmitigable impacts on visual and recreational resources in the Alligator Rock ACEC, in addition to more general significant impacts on air quality and cultural resources, which are discussed in Section IV.C. While the new transmission structures would be similar to those of the adjacent DPV1, the new structures would cause additional skylining¹⁴ and view blockage of the Chuckwalla Mountains in the background. The new line would also increase the structural complexity and industrial character visible from several access roads within the Alligator Rock ACEC. With the amount of industrial development intensified, DPV2 would further degrade the landscape and character of the Alligator Rock ACEC, leading to a significant diminishment of its recreational value.

¹⁴ Skylining occurs when a transmission tower is seen with only the sky behind it, making it highly visible.

**b) Alligator Rock—North of Desert Center
Alternative**

The Alligator Rock—North of Desert Center alternative route segment would avoid traversing the Alligator Rock ACEC. This 11.8-mile alternative would diverge from the proposed DPV2 route approximately five miles east of Desert Center. It would head northwest, cross I-10, and proceed north of Desert Center. The segment would then turn southwest and would parallel I-10 for 3.6 miles before crossing I-10 again and rejoining the proposed route. It would be primarily on BLM land, and on private land for three miles near its western end.

While this alternative route segment would have significant impacts on air quality and cultural resources (as would the proposed project and all alternatives), it would eliminate the proposed route's significant impact to wilderness and recreation, and it would reduce potential effects on highly valuable cultural resources because it would avoid the Alligator Rock ACEC. This alternative would create a different significant visual impact resulting from introduction of a new 500 kV transmission line into a rural landscape lacking similar structures of industrial character, with view blockage of sky and portions of the Chuckwalla Mountains and Alligator Rock in some locations.

**c) Alligator Rock—Blythe Energy
Transmission Route Alternative**

This 4.6-mile alternative route segment would diverge from the proposed project route approximately 3.5 miles east of Desert Center. While within the Alligator Rock ACEC, this alternative would follow its northern edge near I-10. This alternative would follow the Blythe Energy transmission line route proposed by Blythe Energy LLC and would be close to an existing El Paso natural gas pipeline access road.

As with the proposed project and all alternatives, this alternative would have significant impacts on air quality and cultural resources, although the impacts on cultural resources potentially would have less value than those in the heart of the ACEC. The alternative would create different significant visual impacts and would alter the natural landscape of an undeveloped portion of the ACEC to an industrial use, changing the character of the Alligator Rock ACEC and significantly diminishing its recreational value.

**d) Alligator Rock—South of I-10 Frontage
Alternative**

This 9.77-mile alternative route segment would follow the route proposed for the Desert Southwest transmission project (see Section IV.A.6 below). It would diverge from the proposed DPV2 route approximately 3.5 miles east of Desert Center and would follow the Alligator Rock—Blythe Energy route alternative to the point where that alternative turns southwest, just east of Alligator Rock. After passing between the northern end of Alligator Rock and I-10, this alternative route would continue in a westerly direction immediately south of I-10 before rejoining the proposed DPV2 route. For approximately two miles, it would be constructed within a new right of way inside the northeastern boundary of the ACEC.

This alternative would have significant impacts on air quality and cultural resources, as would the proposed project and other alternatives, although the affected cultural resources potentially could have less value than those in the center of the ACEC. This alternative would create different significant visual impacts and, while affecting a smaller area within the ACEC, would significantly diminish its recreational value.

e) Discussion

The Final EIR/EIS concludes that the Alligator Rock – North of Desert Center route segment is environmentally preferred because it would minimize biological, cultural, and wilderness area impacts, even though it would be closer to populated areas and would require two crossings of I-10.

SCE favors placing DPV2 adjacent to DPV1 through the Alligator Rock ACEC. SCE states that it has good information on the site features associated with Alligator Rock and believes that all significant features can be avoided with careful construction monitoring. SCE states that no comparable information exists for the North of Desert Center alternative, and that SCE has not surveyed the North of Desert Center route and has not acquired right of way for the route. SCE notes that, in any event, BLM must grant a permit for the DPV2 route in the Alligator Rock area, since all alternatives lie wholly or partially on BLM lands.

Because the Alligator Rock – North of Desert Center alternative, which crosses both BLM and private land, is the environmentally preferred alternative, SCE should construct the North of Desert Center alternative if BLM authorizes this route in its Record of Decision. It is reasonable to grant SCE the flexibility, if BLM does not authorize the Alligator Rock – North of Desert Center route segment, to build DPV2 on a route segment through the Alligator Rock ACEC that is authorized by BLM, if the segment received full consideration in the Final EIR/EIS, or if it deviates from one of the reviewed route segments solely within BLM land and BLM undertakes the environmental review needed under NEPA.

5. Desert Southwest Transmission Project and Midpoint Substation

The Desert Southwest transmission project proposed by IID would include a 118-mile 500 kV transmission line generally paralleling DPV1 and DPV2 between Blythe and SCE's Devers substation.

a) Desert Southwest Project as Proposed by IID

The Desert Southwest project would originate at a new Keim substation near the Blythe Energy Project power plant. Either a double-circuit 500 kV line or two parallel 500 kV lines would be constructed from the Keim substation to a new Midpoint substation to be located where the line(s) intersect the existing DPV1 line. The Desert Southwest route from the Midpoint substation to Devers generally would be parallel to and immediately north of SCE's right of way for DPV1 and DPV2. It would diverge from the DPV1 corridor only in the vicinity of the Alligator Rock ACEC, as described above in the Alligator Rock—South of I-10 alternative.

IID and BLM prepared a joint EIR/EIS regarding the Desert Southwest project. On September 15, 2006, BLM issued a Record of Decision allowing IID a right of way to use public lands to construct the Desert Southwest project, with the portion between the Blythe area and the Devers substation as a separate stand-alone transmission line adjacent to the DPV2 right of way. In its Record of Decision regarding the Desert Southwest project, BLM approved the Desert Southwest route that IID proposed in the vicinity of Alligator Rock, described in Section IV.A.4.d above. The Desert Southwest EIR/EIS did not consider an alternative north of I-10 in the vicinity of Alligator Rock comparable to the North of Desert Center alternative that the Final EIR/EIS for DPV2 found environmentally superior.

The Final EIR/EIS evaluates the Desert Southwest transmission project as a potential alternative to the portion of DPV2 between a new Midpoint substation and Devers. In this scenario, the Midpoint-to-Devers portion of the Desert Southwest project would carry up to 1,200 MW of load from the Blythe Energy Project and Arizona. The Final EIR/EIS also considers separately the cumulative environmental impacts if both DPV2 and the Desert Southwest project are built as separate 500 kV transmission lines.

Overall, the environmental impacts of the Desert Southwest project as an alternative to DPV2 would be very similar to those of the comparable portion of the proposed DPV2 project with the Alligator Rock—South of I-10 alternative. The Final EIR/EIS concludes that the proposed DPV2 project is environmentally preferred over the Desert Southwest project because it would require less ground disturbance and construction of fewer substations.

b) Possible Integration of DPV2 and Desert Southwest Transmission Projects

SCE and IID are in discussions to integrate the DPV2 and Desert Southwest transmission projects, so that only one 500 kV line would be constructed between a new Midpoint substation and Devers. SCE states that, if SCE and IID reach agreement, the cost to SCE would not exceed the cost of a stand-alone project and DPV2's cost-effectiveness would not be affected adversely. The transfer capability of DPV2 would be expanded from 1,200 MW to 2,340 MW, probably through upgrading series capacitors on the line. SCE would still turn over 1,200 MW of transfer capability to the CAISO, as SCE has proposed in A.05-04-015, and the remainder of the transfer capability would be managed by IID.

SCE describes that, if a joint DPV2-Desert Southwest project arrangement is reached with IID, the joint project arrangement would be a FERC-jurisdictional contract. SCE states that it would file a Permit to Construct application for the new Midpoint substation, as required by GO 131-D. SCE believes that the analysis in the joint EIR/EIS for the Desert Southwest project prepared by BLM and IID satisfies California's environmental requirements for the new substation, so that there would be no need to conduct any additional environmental review.

Neither SCE's PEA nor the Final EIR/EIS for DPV2 addressed environmental impacts that would occur if DPV2 were integrated with the Desert Southwest project with system upgrades that would increase the transfer capability of DPV2 above 1,200 MW. We view possible integration of DPV2 and the Desert Southwest project as speculative at this time, and find that the Final EIR/EIS addressed the Desert Southwest project adequately. However, we note that an increase in the transfer capability of DPV2 may have impacts such as increases in corona noise and EMF that were not addressed in the Final EIR/EIS. We do not authorize SCE to construct the Midpoint substation at this time. If SCE and IID reach agreement regarding integration of DPV2 and the Desert Southwest transmission project, SCE must address environmental and other impacts of the proposed upgrade to DPV2 in any filing requesting Commission authorization to construct the Midpoint substation.

B. Transmission Upgrades West of Devers Substation

1. Proposed Project

The "West of Devers" portion of the proposed DPV2 project would include upgrades to approximately 48 miles of 230 kV transmission lines west of

the Devers substation. SCE would replace two existing 230 kV lines with a new double-circuit 230 kV line and would reconductor a third 230 kV line between the Devers substation and the San Bernardino Junction at the western end of San Timoteo Canyon. SCE would also reconductor a 230 kV transmission line between San Bernardino Junction and the Vista substation, and a 230 kV transmission line between San Bernardino Junction and the San Bernardino substation. SCE also proposes to install Special Protection Scheme relays at the Devers substation, the Padua substation in San Bernardino County, and the Vista substation in Riverside County.

The Final EIR/EIS concludes that the proposed 230 kV upgrades would have significant unmitigable impacts on cultural resources and air quality, which we discuss in Section IV.C as general impacts of the DPV2 project. At the same time, the proposed replacement of two existing 230 kV lines with a single double-circuit 230 kV line would improve views at viewpoints including Cedar Hollow Road in the City of Beaumont, Stargazer Street and Rose Avenue in the City of Beaumont, and the Oak Valley Golf Course in the City of Beaumont. Noise levels along the 230 kV lines would decrease because of the increased capacities of the new conductors and the reconfiguration of towers.

Some of the existing 230 kV transmission lines west of Devers that SCE proposes to upgrade cross over lands of the Morongo Band of Mission Indians (Morongo Tribe) pursuant to existing right-of-way agreements that expire beginning in 2010. SCE reports that the Morongo Tribe has informed SCE that continued use of the existing 230 kV transmission corridor after the current right-of-way agreements expire is not acceptable, but that the Morongo Tribe is willing to negotiate regarding a new right-of-way corridor some distance from

the existing 230 kV transmission lines. SCE expects that this new transmission corridor would cross less of the reservation and more privately-owned land.

Because of the Morongo Tribe's opposition to the 230 kV upgrades over its land, SCE concludes that such upgrades are not feasible. SCE now recommends that the Commission authorize construction of the Devers-Valley No. 2 alternative.

2. Devers-Valley No. 2 Alternative

The Final EIR/EIS evaluates the Devers-Valley No. 2 alternative, a new 41.6-mile 500 kV line that would be constructed immediately adjacent to SCE's existing Devers-Valley No. 1's 500 kV transmission line, and primarily within existing easements. The route is adjacent to residential areas in the City of Banning and also in unincorporated portions of Riverside County including the Cabazon Estates area and the communities of Juniper Flat and Romoland. The route would traverse 4.7 miles of the Santa Rosa and San Jacinto Mountains National Monument (administered by BLM), approximately 1.9 miles of the San Bernardino National Forest, and the Potrero ACEC. It would cross the Pacific Crest National Scenic Trail, and the towers would be visible from the San Jacinto Wilderness Area.

Before the Devers-Valley No. 2 transmission line could be constructed, the Forest Service in the United States Department of Agriculture would have to determine whether it would be consistent with management direction in the governing Forest Plan. Based on Forest Service and BLM determinations, this alternative could require amendments to the San Bernardino National Forest Land Management Plan, the National Monument Proposed Management Plan, and an existing memorandum of understanding among BLM, the Forest Service, and the Pacific Crest Trail Association.

The Final EIR/EIS finds that the Devers-Valley No. 2 alternative would have significant unmitigable visual impacts because of the increased structural contrast, skylining, and view blockage along the corridor, and also from nearby areas including State Route 243, Mapes Road, and the community of Beaumont. The new transmission towers would increase significantly the amount of industrial development and diminish significantly the character and recreational value of the traversed and adjacent recreational resources. The Final EIR/EIS concludes that impacts to the Santa Rosa and San Jacinto National Monument, the Pacific Coast Trail, the San Bernardino National Forest, the San Jacinto Wilderness Area, and the Potrero ACEC would be significant and unmitigable.

3. Discussion

The Final EIR/EIS states that the West of Devers 230 kV upgrades are environmentally preferred over the Devers-Valley No. 2 alternative but that the Devers-Valley No. 2 alternative would be feasible to construct. The Final EIR/EIS concludes that, if the proposed West of Devers upgrades are found to be infeasible, the Devers-Valley No. 2 alternative would meet project objectives and would allow the entire DPV2 project to be constructed.

Because the Morongo Tribe has informed SCE that the proposed upgrades to SCE's existing 230 kV transmission lines west of Devers are not acceptable, we agree with SCE that the West of Devers portion of SCE's proposed DPV2 project is not feasible. While it appears that the Morongo Tribe may be amenable to an alternative transmission corridor across its land, such an alternative route has not been identified at this time. We do not know how long negotiations could take or, if SCE were to reach agreement with the Morongo

Tribe, whether the agreed-upon transmission corridor over tribal land would be found acceptable after subsequent environmental review.

It is reasonable to authorize construction of the Devers-Valley No. 2 alternative. This would allow completion of the economically advantageous DPV2 project within the schedule proposed by SCE. With anticipated continued load growth in southern California, additional transmission upgrades west of Devers may be needed in the future. With authorization of the Devers-Valley No. 2 route, SCE and the Morongo Tribe may continue to negotiate a new right-of-way agreement independent of DPV2.

C. General Environmental Impacts

1. Impacts on Cultural and Paleontological Resources

The Final EIR/EIS identifies several known archaeological sites eligible for listing on the National Register of Historic Places (National Register) that could be affected by DPV2 construction and operation, with additional potentially eligible cultural resource sites located within or adjacent to the transmission corridor. The Final EIR/EIS notes that some areas of direct impact, such as roads and temporary laydown areas, have not been specified or surveyed and that adverse effects to individual sites cannot be identified precisely until final tower locations are determined, detailed engineering plans for all project roads and facilities are completed, and final eligibility of cultural resources for the National Register has been assessed. Also, there is potential to encounter undiscovered cultural and paleontological resources, as well as buried Native American human remains. The Final EIR/EIS proposes several mitigation measures that would allow many direct impacts to be avoided through minor

design modifications. The Final EIR/EIS concludes, however, that significant impacts may be unavoidable during project construction or operation.

2. Corona Noise Impacts

The Final EIR/EIS reports that addition of a second 500 kV line in the DPV1 and Devers-Valley No. 1 corridors would increase permanent noise levels and that the increased noise would create a significant and unmitigable impact at times along portions of the right of way. Specifically, the Final EIR/EIS finds that corona noise levels during wet weather and heavy line loads would violate Riverside County noise policies for residential and other noise-sensitive land uses within 25 feet of the 500 kV right of way.¹⁵ SCE disputes this finding and asserts that it should not be required to mitigate DPV2's noise impacts.

Riverside County Noise Element Policy N.1.1 specifies that residential and other noise-sensitive land uses should be protected from high levels of noise by restricting or relocating noise sources, and Policy N.1.3 establishes a 65 CNEL¹⁶ level as the appropriate trigger level for mitigation. The Final EIR/EIS describes that corona noise levels during wet weather and heavy line loads along the proposed Devers-Harquahala segment would increase to

¹⁵ As described in Section IV.B.1, the 230 kV upgrades in SCE's West of Devers proposal would decrease noise levels along the 230 kV rights of way.

¹⁶ The CNEL, or community noise equivalent level, measures the aggregated sound level occurring over a 24-hour period in decibels (dBA), with a 5 dBA penalty added to evening sounds (between 7:00 p.m. and 10:00 p.m.) and a 10 dBA penalty added to night-time sounds (between 10:00 p.m. and 7:00 a.m.).

about 65.7 Ldn¹⁷ at the edge of the right of way. It concludes that the Riverside County noise policy would be violated during those times for residential uses within 25 feet of the right of way. While noise studies were not provided for the Devers-Valley alternate route, the Final EIR/EIS concludes that the Riverside County noise policy would likely be violated similarly during wet weather and heavy load conditions along the Devers-Valley corridor.

The Final EIR/EIS identifies that the proposed Devers-Harquahala 500 kV line would be located approximately 100 feet from two or three residences in the Palo Verde Valley west of Blythe in California and also would be adjacent to residences in the communities of Thousand Palms and North Palm Springs. The Devers-Valley 500 kV route is adjacent to residential areas in the City of Banning and in unincorporated portions of Riverside County including the Cabazon Estates area, the community of Juniper Flats, areas south of Banning, and areas near the community of Romoland. The Final EIR/EIS did not identify any structures within 25 feet of the right of way, but the identified noise impacts are presumed to occur in the outdoor areas of the residential properties.

SCE contests the finding in the Final EIR/EIS that the DPV2 corona noise level would conflict with the Riverside County noise ordinance. SCE states that the method relied upon in the draft EIR/EIS is based on the L5 noise level (the volume of sound exceeded 5% of the time). SCE reports that, for recent utility projects, Riverside County has applied the CNEL process based on the L50 noise level (the volume of sound exceeded 50% of the time) rather than the L5

¹⁷ The Ldn, or day-night sound level, is a metric similar to CNEL, but it is less stringent because it omits the 5 dBA penalty that the CNEL measurement applies to evening sounds.

noise level. SCE submits that use of the DPV2 project's L50 noise level of 54.7 dBA results in a CNEL noise level of 61.4 dBA, below the 65 dBA threshold in the Riverside County noise ordinance. While SCE has raised questions regarding the manner in which Riverside County interprets its noise ordinance, we are not convinced that the finding in the Final EIR/EIS regarding the significant impact of whether corona noise associated with DPV2 should be rejected.

The Final EIR/EIS states that there are few options for mitigating corona noise as it is a function of conductor design and configuration. The Final EIR/EIS describes that SCE would be expected to properly handle the conductor during construction to avoid damage that could undermine the load-carrying capability of the line and exacerbate the corona effect. The Final EIR/EIS does not recommend that SCE be required to purchase or relocate residences, or undertake any other actions to mitigate corona noise impacts.

SCE asserts that the Final EIR/EIS misrepresents that SCE plans to use APM L-7, an applicant-proposed mitigation measure, to mitigate corona noise. APM L-7, included in SCE's PEA, states as follows:

Link 10 crosses an (unoccupied) single-family dwelling unit at Milepost 5.3. Two additional single-family dwelling units and one mobile home would be impacted due to the alignment of Link 10 at Milepost 6.2. Mitigation measures would include purchase of the parcel and relocation or, if practical, adjusting the transmission line alignment and placing towers to avoid the affected dwelling units.

SCE explains that it suggested APM L-7 as a land-use mitigation measure only because DPV2 may cross over 4 residential parcels, such that SCE may have to purchase the properties or exercise its powers of eminent domain. SCE did not mean that it would relocate homeowners to mitigate corona noise.

SCE asserts that the Commission should not require SCE to relocate homeowners due to corona noise and, further, that such homeowners may not want to be relocated.

We are persuaded that APM L-7 is relevant to noise impacts only to the extent that, because SCE plans to purchase or relocate dwelling units that DPV2 would cross over otherwise, the identified noise problem would no longer exist for those dwelling units. We see no need to clarify APM L-7 in this regard, as SCE suggests.

3. Air Quality Impacts

Assessment of air quality impacts requires that emissions for the entire DPV2 project be evaluated within each of the affected jurisdictions and/or air basins. As a result, the Final EIR/EIS presents its air quality assessment by jurisdiction rather than by project segment.

The Final EIR/EIS describes expected dust and exhaust emissions during DPV2's construction and operation. With mitigation measures, dust and exhaust emissions during construction would remain below the significance thresholds in areas within the jurisdiction of the Maricopa County Air Quality Department, the Air Quality Division of the Arizona Department of Environmental Quality, and the Mojave Desert Air Quality Management District.

While most of the proposed DPV2 route through the South Coast Air Quality Management District (SCAQMD) in southern California is in remote areas, the western part of the route is in more highly developed areas. In this urban context, SCAQMD experiences more severe baseline air quality nonattainment than the other jurisdictions affected by the proposed DPV2 project. The Final EIR/EIS reports that, even with the recommended mitigation measures, construction emissions would exceed the SCAQMD daily regional

significance criteria and, thus, would cause significant and unavoidable (Class I) impacts in the SCAQMD. The Final EIR/EIS makes comparable findings regarding construction impacts of the Alligator Rock, Devers-Valley, and Desert Southwest alternatives, which would be located wholly (Alligator Rock and Devers-Valley alternatives) or partially (Desert Southwest) within the SCAQMD jurisdiction.

The Final EIR/EIS describes that power generated during DPV2 operation would cause emissions from power plants. The CAISO forecasts that, with DPV2, NOx emissions from power plants in Arizona would increase by 200 tons per year and that NOx emissions in California would decrease by 590 tons per year, for a net decrease of 390 tons per year. Similar changes in emissions of other criteria pollutants related to power generation would also occur. The CAISO's assessment is based on 2008 conditions at existing power plants that the CAISO determined to be underutilized in the absence of DPV2. The precise location and quantity of the emissions would change over time depending on the ultimate sources of power flowing into DPV2.

The Final EIR/EIS describes that the identified increase in power plant emissions in Arizona represents an increase of 0.05% of Arizona statewide 2001 NOx emissions and would be within permitted emission levels that have been licensed previously by local air management agencies. The Final EIR/EIS concludes that the increase in power plant emissions in Arizona would be an adverse but less than significant impact of DPV2. The forecasted decrease in California power plant emissions would be a beneficial impact of the proposed project.

V. EMF Issues

The Commission first established EMF policies in D.93-11-013. In our recent review of EMF issues, the Commission stated in D.06-01-042 that, "at this time we are unable to determine whether there is a significant scientifically verifiable relationship between EMF exposure and negative health consequences." We affirmed in D.06-01-042 that the Commission's EMF policy is one of prudent avoidance, with application of low-cost/no-cost mitigation measures to reduce EMF exposure for new and upgraded utility transmission and substation projects. The Commission has adopted a benchmark of 4% of total project cost for low-cost EMF mitigation measures, with flexibility to allow expenditures above the 4% benchmark if justified by a project's unique circumstances. In D.06-01-042, the Commission stated that, as a guideline, low-cost EMF mitigation measures should reduce EMF levels by at least 15% at edge of the utility right of way.

The Final EIR/EIS provides information regarding EMF associated with DPV2. It does not consider magnetic fields¹⁸ in the context of CEQA or NEPA and the determination of environmental impacts because there is no agreement among scientists that EMF creates a potential health risk and because there are no defined or adopted CEQA or NEPA standards for defining health risk from EMF.

¹⁸ Because electric fields are shielded effectively by materials such as trees and walls, the emphasis in the Commission's consideration of EMF is on exposure to magnetic fields.

A. EMF Along Routes Under Consideration

Along the edge of the right of way for the existing DPV1 line, magnetic fields currently range from 8.3 milliGauss (mG) in Riverside County near Thousand Palms to 72.9 mG in Copper Bottom Pass in the Dome Rock Mountains in Arizona. With the addition of DPV2 along the Devers-Harquahala segment, field levels are expected to be reduced between 0.8 and 37.9 mG on the side of the right of way where the existing DPV1 line is located. On the side of the right of way where the new line would be installed, magnetic field levels would increase up to 30.0 mG.

Alternative route segments evaluated for the Devers-Harquahala line are all 500 kV and, if the alternative is adjacent to an existing 500 kV circuit, they would involve field levels similar to those for the proposed Devers-Harquahala route. For alternatives that would require a 500 kV line in a new corridor, magnetic field levels would range between 11.2 and 46.5 mG at the edge of the right of way.

For the 230 kV transmission lines proposed to be upgraded west of the Devers substation, existing magnetic fields at the edge of the right of way range from 4.1 mG in Grand Terrance to 38.5 mG in the Loma Linda area. If the 230 kV upgrades were constructed, field levels would be reduced at the edge of the right of way between 1.0 and 18.1 mG below the existing levels.

The Devers-Valley No. 2 500 kV alternative would be constructed adjacent to the existing Devers-Valley No. 1 500 kV line. Baseline magnetic fields range between 14 and 63 mG at the edge of the right of way. With installation of the second transmission line, magnetic fields would increase between 22 and 28 mG on the side where the new line would be installed and fields would decrease between 16 and 19 mG on the side where the existing line is located.

B. EMF Management Plan for DPV2

SCE states that it has incorporated low-cost and no-cost measures to reduce magnetic fields along the proposed DPV2 route. For the 500 kV Harquahala-Devers line, SCE proposes to optimally phase the DPV2 line with DPV1, as a no-cost EMF mitigation measure. With optimal phasing, adding the DPV2 line to the DPV1 corridor will increase magnetic fields on the side of the right of way adjacent to the new line and decrease magnetic fields on the other side of the right of way as described above. However, the proposed optimal phasing would reduce the fields compared to what they would be if DPV2 were constructed without this EMF reduction measure.

For the 230 kV upgrades proposed west of the Devers substation, SCE proposes to optimally phase the 230 kV lines, as a no-cost EMF mitigation measure, and to optimally phase adjacent 55 kV lines between San Bernardino substation and San Bernardino Junction as a low-cost measure estimated to cost \$270,000. As described above, these no-cost and low-cost measures would reduce the magnetic fields on both sides of the 230 kV right of way.

The ALJ requested that SCE develop information regarding the feasibility of low-cost mitigation of magnetic fields associated with the 500 kV Devers-Harquahala line and the 500 kV Devers-Valley No. 2 alternative to the 230 kV West of Devers upgrades. In particular, SCE was asked to determine how much taller the 500 kV towers would need to be in order to reduce magnetic fields by 15% at the edge of the right of way closer to the new transmission line, which is the side where DPV2 would increase the magnetic fields. The request was limited to those locations where there are residences within 200 feet of that edge of the right of way.

In response to the ALJ request and based on information compiled for the environmental review, Energy Division identified 60 residences within 200 feet of the right of way on the side closer to the new 500 kV transmission lines, with 5 residences located along the Devers-Harquahala segment and the remaining 55 residences located along the Devers-Valley segment. SCE reported that achievement of a 15% reduction in the magnetic field at the edge of the right of way near these residences would require a 20-foot increase in the height of about 33 towers, at an estimated incremental cost of \$1.4 million. Since tower designs have height limitations, SCE cautions that, if any proposed tower height is already taller than about 170 feet, the additional 20-foot height increase may require a different tower design, with potentially significant cost increases.

SCE recommends that the Commission not require this low-cost EMF mitigation, but instead allow the tower and conductor heights to match the adjacent 500 kV transmission lines. SCE submits that constructing new towers taller than the existing towers would increase visual impacts and would conflict with recommended mitigation measures aimed at reducing the visual contrast of the towers, in particular, requirements that new towers match the heights of existing towers to the extent possible. SCE argues further that taller towers would increase the potential for collisions of birds with the power lines, and would conflict with recommended mitigation measures that would require that new towers and lines not be located significantly above existing towers and lines as a collision-reduction technique. As additional support for its position, SCE reports that, while 20-foot higher towers would reduce the magnetic field level by 15% at the edge of the right of way, magnetic field level changes beyond 50 feet from the edge of the right of way would be insignificant.

C. Discussion

As discussed in Section IV.B, we authorize SCE to construct the Devers-Valley No. 2 500 kV transmission line instead of the 230 kV transmission upgrades west of the Devers substation. With that modification to the DPV2 project, SCE should amend its EMF management plan as needed to apply its no-cost 500 kV EMF management techniques to the Devers-Valley corridor in addition to the Devers-Harquahala corridor.

Consistent with D.06-01-042 and D.93-11-013, we require that SCE undertake low-cost EMF mitigation. SCE should increase tower and conductor heights by 20 feet along those portions of the transmission corridor where there are residences near the side of the right of way closer to the new 500 kV transmission lines. SCE has established that this design modification would reduce magnetic fields by 15% at the edge of the right of way, which is consistent with the Commission's guidance in D.06-01-042 for low-cost EMF mitigation. This design modification should be undertaken wherever there are residential properties within 50 feet of the side of the right of way closer to the new 500 kV transmission lines. As SCE has pointed out, the change in magnetic field strength due to the new transmission lines would decrease significantly beyond 50 feet from the right of way.

We do not believe that the potential conflict of this low-cost EMF mitigation measure with environmental mitigation efforts would be significant. Few of the areas where EMF mitigation will occur are completely flat, and the towers and conductors would be difficult to line up due to even small elevation changes between existing and new towers. With tower heights of 150 feet, a 20-foot height increase for DPV2 towers and conductors is unlikely to be noticeable to most observers.

We require that SCE apply this low-cost EMF mitigation measure where there are existing residential properties and also where development of new residences is underway at the time that SCE undertakes final DPV2 project design. Consistent with guidance in D.06-01-042, we do not require that SCE attempt to determine possible future uses of undeveloped land. If applicable, SCE would not be required to raise tower heights near residential properties that will be acquired and converted from residential use in order to allow construction of DPV2, for example, as contemplated by APM L-7 (see Section IV.C.2 above).

With limitation to areas where residential properties are within 50 feet of the edge of the right of way closer to the new 500 kV transmission lines, the cost of the adopted EMF mitigation measure may be less than SCE's \$1.4 million estimate, which encompassed residential properties within 200 feet of the right of way. Even at \$1.4 million, the cost will be much less than the Commission's 4% benchmark for low-cost EMF mitigation. As described in Section III.A.5, SCE may seek an increase in the approved maximum cost of DPV2 if the adopted low-cost EMF mitigation measure causes the cost cap to be exceeded.

VI. Environmental Analysis

A. Mitigation Measures

The conclusions in the Final EIR/EIS regarding environmental impacts of the proposed project and its alternatives assume that the impact-reduction measures proposed in the PEA, called Applicant Proposed Measures or APMs, and the additional mitigation measures recommended in the Final EIR/EIS will be implemented. In Section IV.C.2, we address SCE's concerns with interpretation of APM L-7. In this section, we address two additional concerns about mitigation measures. We adopt the mitigation measures proposed in the

Final EIR/EIS, with one modification to mitigation measure B-16a discussed below. The applicable Applicant Proposed Measures and Final EIR/EIS mitigation measures for DPV2 are included in Attachment A. Implementation of the Applicant Proposed Measures and the applicable mitigation measures is a condition of our approval of this project.

1. Raven Control

In its Phase 2 brief, SCE takes issue with one of the Final EIR/EIS mitigation measures, specifically, mitigation measure B-16a regarding raven control.¹⁹ In addition to SCE's APM B-20 requiring that transmission lines be designed to reduce the likelihood of nesting by common ravens and removal of any common raven nests found on the structures,²⁰ the Final EIR/EIS recommends mitigation measure B-16a, as follows:

B-16a Prepare and implement a raven control plan. SCE shall prepare a common raven control plan that identifies the purpose of conducting raven control, provides training in how to identify raven nests and how to determine whether a nest belongs to a raven or a different raptor species, describes the seasonal limitations on disturbing nesting raptors species (excluding ravens), describes the procedure for obtaining a permit from the USFWS's Division of Migratory Birds, and describes procedures for documenting the activities on an annual basis. SCE shall gain approval of the plan from the USFWS's Division of Migratory Birds. SCE shall provide this raven control plan to all transmission line companies that conduct operations within the ROW [right of way].

¹⁹ Common ravens are known to nest in transmission towers and prey upon nearby wildlife species, including juvenile tortoises and other wildlife species that may be listed as threatened or endangered, or considered sensitive.

²⁰ As SCE points out in comments on the proposed decision, APM B-20 would apply only in the Coachella Valley region.

SCE requests that mitigation measure B-16a be modified as follows:

B-16a **Contribute to an agency sponsored raven reduction plan for the California desert.** SCE will work with the Bureau of Land Management and the USFWS to reduce raven populations in the desert by contributing to an agency-sponsored raven reduction program for the California Desert. The amount of contribution shall be commensurate with the expected contribution of raven nesting resulting from the DPV2 transmission line.

SCE expresses concern that mitigation measure B-16a as presented in the Final EIR/EIS would be infeasible, with unlimited scope and expenditure. SCE states that the Commission should not impose mitigation measures to be applied to existing transmission lines, or to other transmission owners. It contends that there likely would be no reduction in raven nesting activity by removing raven nests from towers on DPV2 when there is no raven control on the adjacent towers. SCE also questions the feasibility of raven control, citing its experience that ravens often will rebuild a nest as soon as it is taken down. SCE suggests that it could make a monetary contribution to an agency-sponsored raven reduction program, requesting that, at a minimum, the Commission revise mitigation measure B16-a "to place some reasonable limitations on what SCE could be required to do for this program."

Mitigation measure B-16a as recommended in the Final EIR/EIS would require that SCE develop a raven control plan for its own use and provide a copy to other transmission companies. We are perplexed by SCE's contention that this mitigation measure may not provide any benefits, in light of its own proposed measure for raven control and nest removal in APM B-20. The efficacy of SCE's proposed revision to mitigation measure B-16a is questionable. BLM and the USFWS have not indicated that they have, or are interested in creating, an agency-sponsored raven reduction program for the California desert. We

agree that raven control should be implemented as proposed in the Final EIR/EIS.

In its comments on the proposed decision, SCE points out that common ravens are not raptors. We adopt mitigation measure B-16a, with a minor modification to clarify this point, as follows:

B-16a **Prepare and implement a raven control plan.** SCE shall prepare a common raven control plan that identifies the purpose of conducting raven control, provides training in how to identify raven nests and how to determine whether a nest belongs to a raven or a raptor species, describes the seasonal limitations on disturbing nesting raptors species (excluding ravens), describes the procedure for obtaining a permit from the USFWS's Division of Migratory Birds, and describes procedures for documenting the activities on an annual basis. SCE shall gain approval of the plan from the USFWS's Division of Migratory Birds. SCE shall provide this raven control plan to all transmission line companies that conduct operations within the ROW.

2. Agua Caliente Allottee Land

SCE's Devers-Palo Verde right of way crosses an approximately 0.1-mile stretch of land held by members of the Agua Caliente Band of Cahuilla Indians (Agua Caliente). During the DPV2 environmental review, Agua Caliente submitted a letter to the Commission and BLM asserting jurisdiction over the land and requesting that a mitigation measure be imposed requiring that SCE obtain a conditional use permit prior to construction of DPV2.

SCE asserts that it is not required to obtain a conditional use permit for this land. SCE states that it is consulting and coordinating with the Agua Caliente Planning Department regarding the right of way, but that it objects to the proposed terms of a conditional use permit, which would last no more than 25 years and may be revoked.

As explained in the Final EIR/EIS, the Commission has preemptive jurisdiction over the construction, maintenance, and operation of SCE facilities in California. However, GO 131-D requires that, in locating electric facilities such as DPV2, SCE consult with local agencies regarding land use matters. Section XIV of GO 131-D provides that, where the utility and a local jurisdiction are unable to reach agreement on a utility project, the utility may bring the conflict before the Commission for resolution. Mitigation measure L-1c in the Final EIR/EIS mirrors the provisions of GO 131-D.

The Agua Caliente opposed SCE's use of this allottee land when it constructed DPV1. The Commission authorized SCE to obtain a right of way through the land, and SCE successfully litigated an eminent domain complaint in federal district court pursuant to 25 U.S.C. § 357 to condemn the allottee land needed for DPV1.²¹

We find that mitigation measure L-1c addresses the Agua Caliente concerns adequately. SCE should negotiate in good faith to reach a mutually acceptable agreement with the allottee and should coordinate with the Agua Caliente. If the parties are unable to reach an agreement, SCE should follow the procedures in GO 131-D and mitigation measure L-1c to obtain further Commission review of the dispute. We modify Section 1.1.4 in the Executive Summary of the Final EIR/EIS, as requested by SCE in its comments on the proposed decision, to describe GO 131-D requirements accurately.

²¹ Southern California Edison Co. v. Rice, 685 F.2d 354, 1982 U.S. App. LEXIS 16318 (9th Cir. Cal. 1982) petition for cert. denied, Rice v. Southern California Edison, 460 U.S. 1051, 103 S. Ct. 1497, 75 L. Ed. 2d 929, 1983 U.S. LEXIS 4300, 51 U.S.L.W. 3703 (1983).

B. Mitigation Monitoring

The Final EIR/EIS includes a proposed Mitigation Monitoring, Compliance, and Reporting Program (MMCRP or Mitigation Monitoring Program) for the mitigation measures it recommends for the DPV2 project. It recommends a framework for implementation of the Mitigation Monitoring Program by this Commission as the CEQA lead agency and BLM as the NEPA lead agency. We adopt the Mitigation Monitoring Program, which is contained in Section X of Attachment B to this decision.

Consistent with Public Resources Code § 21081.6 and CEQA Guidelines § 15097, the Commission must adopt a Mitigation Monitoring Program when it approves a project that is subject to preparation of an EIR and where the EIR identifies significant adverse environmental effects. As the NEPA lead agency, BLM is responsible for ensuring that mitigation measures are implemented on its land. In the memorandum of understanding between BLM and the Commission governing the joint environmental review of DPV2, BLM and the Commission have agreed that the Commission will be responsible for implementing all adopted mitigation and monitoring provisions on both State and federal lands. BLM has agreed to provide the Commission access to federal lands as needed to conduct the adopted mitigation and monitoring activities.

C. Adequacy and Certification of the Final EIR/EIS

The Final EIR/EIS must contain specific information according to the CEQA guidelines, §§ 15120 through 15132. The various elements of the Final EIR/EIS satisfy these CEQA requirements. The Final EIR/EIS consists of the draft EIR/EIS, with revisions in response to comments and other information

received. Volume 3 of the Final EIR/EIS contains the comments received on the draft EIR/EIS and individual responses to these comments.²²

The Commission must conclude that the Final EIR/EIS is in compliance with CEQA before approving SCE's request for a CPCN. The basic purpose is to ensure that the environmental document is a comprehensive, accurate, and unbiased tool to be used by the lead agency and other decisionmakers in addressing the merits of the project. The document should embody "an interdisciplinary approach that will ensure the integrated use of the natural and social sciences and the consideration of qualitative as well as quantitative factors."²³ It must be prepared in a clear format and in plain language.²⁴ It must be analytical rather than encyclopedic, and emphasize alternatives over unnecessary description of the project.²⁵ Most importantly, it must be "organized and written in such a manner that [it] will be meaningful and useful to decisionmakers and the public."²⁶

In Section VI.A above, we find that mitigation measure B-16a and Section 1.1.4 in the Executive Summary of the Final EIR/EIS should be modified. We also find that Section H.1.3 in the Mitigation Monitoring and Reporting section of the Final EIR/EIS should be deleted. With these changes, we believe that the Final EIR/EIS is in compliance with CEQA. It is a comprehensive,

²² CEQA Guidelines, § 15132.

²³ *Id.*, § 15142.

²⁴ *Id.*, §§ 15006(q) and (r), 15120, 15140.

²⁵ *Id.*, §§ 15006, 15141; Pub. Res. Code § 21003(c).

²⁶ Pub. Res. Code § 21003(b).

detailed, and complete document that discusses clearly the advantages and disadvantages of the environmentally superior routes, SCE's proposed route, and various alternatives. We find that, as modified, the Final EIR/EIS is a competent and comprehensive informational tool, as CEQA requires it to be. The quality of the information in the Final EIR/EIS is such that we are confident of its accuracy. We have considered the information in the Final EIR/EIS in approving the DPV2 project as described in this decision. The Commission should certify the Final EIR/EIS as modified by this order.

VII. Authorized DPV2 Project and Statement of Overriding Considerations

A. Authorized DPV2 Project

Based on the considerations above, we authorize SCE to construct the proposed DPV2 project with the following routing conditions:

SCE should terminate DPV2 at a new Harquahala Junction, if a commercially reasonable agreement can be reached and subject to approval by the Arizona Corporation Commission and any other needed authorizations. Otherwise, SCE may terminate DPV2 at the Harquahala switchyard.

SCE may construct a route in the Kofa area that is acceptable to the USFWS and other permitting agencies.

SCE should construct the North of Desert Center alternative in the Alligator Rock ACEC area if BLM authorizes this route. Otherwise, SCE may build DPV2 on a route segment through the Alligator Rock ACEC area acceptable to BLM, if the segment received full consideration in the Final EIR/EIS or deviates from one of the reviewed route segments solely within BLM land.

SCE should construct the Devers-Valley No. 2 500 kV alternative rather than the 230 kV upgrades that SCE proposed west of the Devers substation.

Attachment B presents the findings required by CEQA Guidelines Section 15091, describing each significant and potentially significant impact identified in the Final EIR/EIS, the relevant mitigation measures, and the findings of the Commission with respect to each impact.

The Final EIR/EIS has identified unavoidable significant impacts that will result from construction and operation of the authorized DPV2 project. Section 15093(b) of the CEQA Guidelines provides that, when the decision of the public agency allows the occurrence of significant impacts which are identified in the EIR but are not at least substantially mitigated, the agency must state in writing the reasons to support its action based on the completed EIR and/or other information in the record. CEQA Guidelines Section 15093(b) requires that the decision-maker adopt a Statement of Overriding Considerations at the time of approval of the project if it finds that significant adverse environmental effects have been identified in the EIR that cannot be substantially mitigated to an insignificant level or be eliminated.

The following impacts are not mitigated to a less than significant level for the proposed project: visual impacts in Kofa (Arizona), Harquahala Mountain Telecommunication Facility (Arizona), and the Alligator Rock ACEC; wilderness/recreation effects at the same three locations and also at the Chuckwalla Dune Thicket ACEC; the conversion of agricultural land to non-agricultural use (13.6 acres in Arizona); potential adverse changes to known historic resources, to buried prehistoric and historical archaeological sites, or to human remains; corona noise that would exceed Riverside County standards; and air emissions that would exceed thresholds in the SCAQMD.

Implementation of alternatives could eliminate some of these identified impacts. Use of the North of Desert Center alternative to avoid new impacts to the Alligator Rock ACEC would eliminate visual, wilderness/recreation, and cultural resources impacts to the ACEC, but would create additional visual impacts resulting from the addition of the transmission line in a new corridor north of the ACEC. Implementation of the Harquahala Junction Switchyard alternative would eliminate the significant impact from conversion of agricultural lands in Arizona. While a wide range of alternatives was evaluated in an attempt to avoid impacts to Kofa, no feasible alternatives were identified that would reduce impacts in comparison with the impacts of the proposed project.

In the project segment west of the Devers substation, the proposed West of Devers upgrades would not create any significant unmitigable impacts. Since the Morongo Tribe has informed SCE that its proposed West of Devers upgrades are not acceptable, this portion of the project is not feasible, and we authorize construction of the Devers-Valley No. 2 alternative. This alternative would have the following significant and unmitigable impacts: visual impacts in several locations; inconsistency with BLM's Visual Resources Methodology management objectives in the Potrero ACEC and with the San Bernardino National Forest's Scenic Integrity Objectives; wilderness/recreation impacts at Santa Rosa and San Jacinto Mountains National Monument, Pacific Crest Trail, San Jacinto Wilderness Area, and Potrero ACEC; potential adverse changes to known historic resources, to buried prehistoric and historical archaeological sites, or to human remains.; corona noise; and air emissions.

None of the other alternatives alleviate the significant impacts and are feasible in light of the project objectives, as described in Final EIR/EIS

Appendix 1 (Alternatives Screening Report). Accordingly, the Commission adopts the following Statement of Overriding Considerations.

B. Statement of Overriding Considerations

The Commission recognizes that significant and unavoidable impacts will result from implementation of the DPV2 project. Having (i) adopted all feasible mitigation measures, (ii) adopted certain alternatives that reduce the impacts of the proposed project, (iii) rejected as infeasible alternatives to the project discussed above, (iv) recognized all significant, unavoidable impacts, and (v) balanced the benefits of the project against the project's significant and unavoidable impacts, the Commission hereby finds that the benefits outweigh and override the significant unavoidable impacts for the reasons stated below.

The Commission adopts and makes this statement of overriding considerations concerning the DPV2 project's unavoidable significant impacts to explain why the project's benefits outweigh its unavoidable impacts.

The discussion above and in Sections III and IV describes each alternative that was considered in the Final EIR/EIS and explains why each one has been included in the authorized project or rejected.

This project will provide substantial benefits, in that it will provide significant economic benefits for CAISO ratepayers, increase the reliability of the interstate transmission network, increase operational flexibility, and provide insurance value as an economic hedge against low-probability, high-impact events. We set forth the reasons for finding these substantial benefits, with citations to the record, in Section III above. The Commission finds that the DPV2 project's unavoidable impacts are acceptable in light of these substantial benefits, which constitute an overriding consideration warranting approval of the project, despite each and every unavoidable impact.

**VIII. Compliance with Public Utilities Code
Section 625**

Pub. Util. Code § 625 provides that a public utility that offers competitive services may not condemn any property for the purpose of competing with another entity unless the Commission finds that such an action would serve the public interest based on a hearing for which the owner of the property to be condemned has been noticed and the public has an opportunity to participate (§ 625(a)(1)(A)). However, an exception is made for condemnation actions that are necessary solely for an electric or gas company to meet a Commission-ordered obligation to serve. In that circumstance, the electric or gas company is required to provide notice on the Commission Calendar if and when it pursues installation of facilities for the purpose of providing competitive services (§ 625(a)(1)(B)).

SCE proposed the DPV2 project to meet SCE's obligation to serve its electric customers, and we authorize it for that purpose. The DPV2 project includes new fiber optic cable to provide internal communications links for line protection, but SCE states that it has no current intention to use this fiber optic cable for competitive purposes or to lease it.

In D.01-10-029, the Commission addressed the applicability of § 625 where the utility is implementing a project to meet its obligation to serve, but aspects of the project may have a competitive purpose later. We described that § 625 provides two different levels of notice and oversight and that, "The lesser standard requires that when condemning properties to carry out a commission-ordered obligation, § 625(a)(1)(B) is applicable, which only requires notice be provided to the Commission Calendar." With similar circumstances, we conclude as in D.01-10-029 that the lesser standard, notice, applies for the DPV2 project.

IX. SCE Motion Regarding DRA Consultant Costs

On August 30, 2006, SCE filed a motion regarding reimbursement of DRA consultant expenses. SCE asks the Commission to do the following:

1. Find that SCE should reimburse DRA up to \$375,000 for consultant expenses incurred for this proceeding, consistent with § 631;
2. Authorize SCE to capitalize the reimbursed consultant costs as project costs, and adjust the adopted cost cap by the final amount;
3. Allow SCE to provide the final amount in a filing it would make after the issuance of the CPCN in this proceeding;
4. Account for DRA consultant costs related to the DPV2 project separately from those consultant costs related to I.05-06-041; and,
5. If the Commission deems it appropriate to have DRA reimbursed for its consultant costs related to I.05-06-041, order that such consultant costs be allocated to PG&E and SDG&E as well as SCE.

DRA filed a response to SCE's motion. Regarding SCE's first request, DRA does not believe a Commission finding is required, since SCE does not dispute that it must reimburse DRA's consultant costs related to this case. DRA does not object to SCE's proposal that reimbursed costs be included in the cost cap and capitalized.

DRA takes issue with SCE's assertion that some of DRA's consultant work related solely to I.05-06-041 and therefore is not reimbursable pursuant to § 631. DRA states that its consultants were engaged to provide expert testimony on the need for DPV2 and that all prepared testimony fell within that scope. DRA states

that, since the Phase 1 hearings were held jointly in A.05-04-015 and I.05-06-041, the hearing time could be considered a joint activity. It maintains, however, that DRA's consultants attended the hearings only to address the need for DPV2. DRA concludes that its consultant costs should not be separated into two categories as SCE suggests, and instead should all be reimbursed pursuant to § 631.

PG&E responded in opposition to SCE's suggestion that a portion of DRA's consultant costs could be allocated to PG&E. PG&E argues that there is no basis for it or its ratepayers to assume any of the costs associated with DRA's consultants.

We agree with SCE that DRA consultants' evaluation of DPV2 assisted in the Commission's concurrent consideration in I.05-06-041 of methodologies for the economic evaluation of transmission lines. However, a review of the consultants' testimony confirms, as DRA indicates in its response, that their evaluation focused on need for DPV2. We find that the issues addressed by DRA's consultants are inextricably linked to the Commission's review of DPV2. For this reason, SCE should reimburse all of DRA's consultant costs in this proceeding, pursuant to § 631. We will not place a \$375,000 limit on the reimbursable amount, as SCE requests.

We reject SCE's request that the cost cap for DPV be increased to reflect DRA's consultant costs. SCE has included an allowance for contingency costs in its DPV2 cost estimates, which we include in the maximum cost adopted in Section III.A.5.b pursuant to § 1005.5(a). SCE may treat the reimbursed consultant costs as DPV2 project costs for purposes of determining compliance with the approved maximum cost. If needed, SCE may seek an increase in the approved maximum cost as provided in Section 1005.5(b).

DRA notes that, at the time of its response to SCE's motion, the Commission had presented SCE five invoices and eight late notices for costs related to DRA's consultants, in amounts exceeding \$300,000. SCE should pay all outstanding Commission invoices for DRA consultant expenses within five days of the effective date of this order.

X. Comments on Proposed Decision

The proposed decision of the ALJ in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and Rule 14.2(a) of the Commission's Rules of Practice and Procedure. SCE, the CAISO, and DRA filed comments on the proposed decision. No party filed reply comments.

We have made several minor modifications and clarifications to the proposed decision in response to the filed comments. As addressed elsewhere in the decision, these changes include more accurate descriptions of GO 131-D requirements and § 1005.5(a) provisions, as well as clarifications regarding the CAISO's economic evaluation of DPV2 and the adopted raven control mitigation requirement. In addition, in Attachment B we clarify that the Final EIR/EIS does not consider EMF concerns in the context of CEQA or NEPA.

XI. Assignment of Proceeding

Dian M. Grueneich is the assigned Commissioner and Charlotte F. TerKeurst is the assigned ALJ in this proceeding.

Findings of Fact

1. Our assessment of the economic benefits the DPV2 project is based on its design and construction to provide 1,200 MW of transfer capability between southern California and Arizona, to be operated by the CAISO.

2. SCE projects that DPV2 will provide benefits to CAISO ratepayers of almost \$460 million in excess of its costs, with a resulting benefit-cost ratio of 1.71.

3. The CAISO projects that DPV2 will provide levelized annual benefits to CAISO ratepayers between \$17 million and \$158 million in excess of its costs, with a resulting benefit-cost ratio between 1.25 and 3.34.

4. DRA forecasts that DPV2 will provide net energy benefits of \$261 million in excess of DPV2's costs, with a CAISO Ratepayer benefit-cost ratio of 1.31.

5. It is reasonable to adopt a maximum cost for DPV2 pursuant to § 1005.5(a) of \$545,285,000 in 2005 dollars, to be decreased by \$24,080,000 if the Devers-Harquahala line is terminated at Harquahala Junction and increased by \$8,282,000 if the Alligator Rock—North of Desert Center route segment is used. In assessing compliance with the authorized maximum cost, it is reasonable to deflate actual expenditures to their equivalent value in 2005 dollars using the Handy-Whitman Index of Public Utility Construction Costs.

6. The parties' economic evaluations of DPV2 submitted in this proceeding demonstrate that DPV2 will provide significant economic benefits to CAISO-area ratepayers.

7. DPV2 will expand the interstate regional transmission network, increase its reliability, provide more operational flexibility, and provide insurance value as an economic hedge against low-probability, high-impact events.

8. Energy efficiency, demand response, and renewable generation do not hold sufficient near-term promise to provide a feasible or cost-effective alternative to DPV2, and would not offer the operational and other system benefits expected due to DPV2.

9. New transmission and generation options, in addition to demand side resources, should be pursued to meet the need for new energy supply in southern California.

10. Based on the STEP process that considered a range of potential transmission alternatives, DPV2 is the preferred new transmission alternative to provide access to lower-cost energy in the Southwest.

11. Terminating the Devers-Harquahala transmission line at Harquahala Junction would be less expensive than termination at the Harquahala Generating Company switchyard, and is the environmentally preferred alternative.

12. It is reasonable to require SCE to pursue good-faith efforts to reach a commercially reasonable agreement and seek the additional authorizations needed for construction of Harquahala Junction.

13. The Alligator Rock—North of Desert Center alternate route segment would avoid the Alligator Rock ACEC and is environmentally preferable to the proposed project paralleling DPV1 through the ACEC.

14. Neither SCE's PEA nor the Final EIR/EIS for DPV2 addressed environmental impacts if DPV2 is integrated with the Desert Southwest project.

15. The Devers-Valley No. 2 alternative is a viable and acceptable alternative to the West of Devers upgrades proposed by SCE.

16. It is reasonable to allow SCE to construct the Devers-Valley No. 2 transmission line as part of the DPV2 project.

17. A 20-foot increase in the height of DPV2 transmission towers would achieve a 15% reduction in the magnetic field at the edge of the right of way nearest to the DPV2 towers.

18. SCE reports that increasing the height of 33 towers by 20 feet would have an incremental cost of \$1.4 million.

19. It is reasonable to require SCE to undertake low-cost EMF mitigation for the DPV2 project, as described in Section V.C of this decision.

20. A comprehensive record on environmental matters was developed in this proceeding through issuance of a draft EIR/EIS, consultation with public agencies and others, and public hearings. All are elements in the environmental process, which culminated in the issuance of the Final EIR/EIS.

21. The project alternatives considered in the Final EIR/EIS constitute a reasonable range of feasible alternatives, as required by the CEQA Guidelines.

22. The Final EIR/EIS identifies significant environmental impacts of the approved route that cannot be mitigated or avoided.

23. The environmental mitigation measures identified in the Final EIR/EIS, as modified by this order and contained in Attachment A, are feasible and will minimize or avoid significant environmental impacts.

24. As State lead agency under CEQA, the Commission is required to monitor the implementation of mitigation measures adopted for this project to ensure full compliance with the provisions of the monitoring program.

25. The Mitigation Monitoring, Compliance, and Reporting Plan in Section X of Attachment B to this decision conforms to the recommendations of the Final EIR/EIS for measures required to mitigate or avoid environmental effects of the project that can be reduced or avoided.

26. The Commission will develop a detailed implementation plan for the Mitigation Monitoring, Compliance, and Reporting Plan.

27. The Commission has reviewed and considered the information in the Final EIR/EIS before approving the project.

28. The Final EIR/EIS is a competent and comprehensive informational tool. With the modifications adopted in this decision, the quality of the information therein is such that we are confident of its accuracy.

29. Statement of Overriding Considerations: The DPV2 project will provide substantial benefits, in that it will provide significant economic benefits for CAISO-area ratepayers, increase the reliability of the interstate transmission network, increase operational flexibility, and provide insurance value as an economic hedge against low-probability, high-impact events. The DPV2 project's unavoidable impacts are acceptable in light of these substantial benefits, which constitute an overriding consideration warranting approval of the project, despite each and every unavoidable impact.

Conclusions of Law

1. The Commission has jurisdiction over the proposed project pursuant to, *inter alia*, Pub. Util. Code § 1001 *et seq.*

2. SCE's motion to submit late-filed Exhibit 43 should be granted.

3. The Commission has authority to specify a "maximum cost determined to be reasonable and prudent" for the DPV2 project pursuant to Pub. Util. Code § 1005.5.

4. The Commission should approve a maximum reasonable and prudent cost for this project as specified in Finding of Fact 5.

5. If SCE's final detailed engineering design-based construction estimates for the authorized project is one percent or more lower than the authorized maximum cost, SCE should show cause why the Commission should not adopt a lower amount as the maximum reasonable and prudent cost to reflect the final estimate.

6. If SCE's final detailed engineering design-based construction estimates for the authorized project exceeds the authorized maximum cost, SCE should seek an increase in the approved maximum cost pursuant to § 1005.5(b), to allow the Commission to assess whether the cost increases affect the cost effectiveness and need for the DPV2 project.

7. Commission approval of SCE's application, as modified herein, is in the public interest.

8. Project approval should be conditioned upon construction according to the following route:

In Arizona, the DPV2 project should depart from either the Harquahala Generating Station switchyard or a new Harquahala Junction. If the DPV2 project departs from the Harquahala Generating Station switchyard, it should proceed east, paralleling the existing Harquahala-Hassayampa 500 kV line for approximately five miles to its intersection with SCE's existing DPV1 route at the site of the proposed Harquahala Junction. At this point, whether the route departs from the Harquahala Generating Station switchyard or Harquahala Junction, the route should be the same.

At its intersection with DPV1 at Harquahala Junction, the DPV2 route should turn north (paralleling the DPV1 line) for approximately 2.4 miles to where it should cross I-10, and then proceed 3.7 miles to a point northeast of Burnt Mountain. From there the route should turn west and roughly parallel the north side of I-10 and the Central Arizona Project Canal for approximately 20 miles into La Paz County, then turn southwest, crossing to the south of I-10 and proceeding approximately 5 miles to a point where it meets the El Paso Natural Gas Company (EPNG) pipeline. The route should parallel the EPNG pipeline and DPV1 for approximately 56 miles, across the Ranegras Plain where a series capacitor bank should be constructed and through La Posa Plain. The route may follow or deviate from SCE's proposed route in the Kofa

area. The route should cross over Arizona Highway 95 and proceed into the Dome Rock Mountains to the summit of Copper Bottom Pass. The route should turn southwest and descend the western slope of the Dome Rock Mountains to reach the Colorado River.

The route should cross the Colorado River into California and generally follow the DPV1 right of way to SCE's Devers substation. The route should pass into the Palo Verde Valley, five miles south of Blythe, California and should proceed westerly to the top of the Palo Verde Mesa and then turn northwest to a point two miles south of I-10 and five miles southwest of Blythe Airport. At this point, the route should turn west following the DPV1 line to a point five miles east of Desert Center. DPV2 should either follow the DPV1 route for 10.6 miles or the North of Desert Center route for 11.8 miles north of I-10 and Desert Center to avoid the Alligator Rock Area ACEC. On the west side of Alligator Rock ACEC and south of I-10, the route should continue west for another 24 miles, passing a site where a series capacitor should be constructed, to a point in Shavers Valley where it should turn north and cross I-10 about two miles east of the Cactus City Rest Stop. After crossing I-10, the route should continue west-northwest, parallel to the DPV1 line for 46 miles to the Devers substation.

The route west of the Devers substation should leave Devers in a westerly direction paralleling SCE's existing Devers-Valley No. 1 line for 41.6 miles. The route should cross into the San Bernardino National Forest and the Santa Rosa and San Jacinto Mountains National Monument and parallel the Devers-Valley No. 1 line westerly and southwesterly until it terminates at SCE's Valley substation.

9. SCE should be authorized to terminate the Devers-Harquahala transmission line at Harquahala Junction or, if Harquahala Junction does not receive the needed approvals in Arizona or is otherwise not feasible, at the Harquahala Generating Company switchyard.

10. If the USFWS rejects the proposed route for DPV2 paralleling DPV1 through Kofa, that route will become legally infeasible.

11. SCE should be authorized to construct a route in the Kofa area that is acceptable to the USFWS and other permitting agencies, subject to a showing, if a proposed routing modification causes expected DPV2 costs to exceed the authorized maximum cost, that the routing modification is not detrimental to the cost effectiveness of DPV2.

12. SCE should be authorized to construct the North of Desert Center alternative or, if BLM does not authorize the North of Desert Center alternative, to construct DPV2 on a route segment through the Alligator Rock ACEC that is acceptable to BLM if the route segment received full consideration in the Final EIR/EIS or if it deviates from one of the reviewed segments solely within BLM land.

13. If SCE and IID reach agreement regarding integration of DPV2 and the Desert Southwest transmission project, SCE should be required to address environmental and other impacts of the proposed upgrades to DPV2 if it requests Commission authorization to construct the Midpoint substation or any other facilities related to integration of DPV2 and the Desert Southwest transmission project.

14. The West of Devers portion of SCE's proposed DPV2 project is not legally feasible.

15. SCE should be authorized to construct the Devers-Valley No. 2 transmission line as part of the DPV2 project.

16. SCE should amend its EMF management plan as needed to apply its no-cost 500 kV EMF management techniques to the Devers-Valley corridor in

addition to the Devers-Harquahala corridor, and to incorporate low-cost EMF mitigation as described in Section V.C of this decision.

17. The Commission retains authority to approve SCE's EMF management plan to ensure that it does not create adverse environmental impacts.

18. Mitigation measure B-16a should be modified to clarify that ravens are not raptors.

19. Section 1.1.4 in the Executive Summary of the Final EIR/EIS should be modified to describe GO 131-D requirements accurately.

20. The mitigation measures contained in Attachment A to this decision should be adopted and made conditions of project approval.

21. The Mitigation Monitoring, Compliance, and Reporting Plan in Section X of Attachment B to this decision should be adopted.

22. The findings required by CEQA Guidelines Section 15091, as contained in Attachment B to this decision, should be adopted.

23. The Final EIR/EIS has been completed in compliance with the CEQA guidelines.

24. Section H.1.3 in the Final EIR/EIS should be deleted.

25. With the modifications adopted in this decision, the Final EIR/EIS satisfies CEQA requirements and should be certified.

26. Pub. Util. Code § 625(a)(1)(A) does not apply to this project. However, SCE must provide notice pursuant to § 625(a)(1)(B) if and when it pursues installation of facilities for purposes of providing competitive services.

27. SCE's motion regarding reimbursement of DRA consultant expenses should be denied, except that SCE should be required to pay all outstanding invoices for DRA consultant expenses expeditiously.

28. This order should be effective today so that SCE may proceed expeditiously with construction of the authorized project.

O R D E R

IT IS ORDERED that:

1. A Certificate of Public Convenience and Necessity (CPCN) is granted, subject to the conditions set forth in this Order, to Southern California Edison Company (SCE) to construct a 500 kilovolt (kV) transmission line between either the Harquahala Generating Station switchyard or a new Harquahala Junction in Arizona to SCE's Devers substation, a 500 kV transmission line between the Devers substation and SCE's Valley substation, and associated facilities (collectively, the Devers-Palo Verde No. 2 (DPV2) project).

2. SCE shall, as a condition of the CPCN, build the DPV2 project in accordance with the following route:

In Arizona, the DPV2 project shall depart from either the Harquahala Generating Station switchyard or a new Harquahala Junction. If the DPV2 project departs from the Harquahala Generating Station switchyard, it shall proceed east, paralleling the existing Harquahala-Hassayampa 500 kV line for approximately five miles to its intersection with SCE's existing Devers-Palo Verde No. 1 (DPV1) route at the site of the proposed Harquahala Junction. At this point, whether the route departs from the Harquahala Generating Station switchyard or Harquahala Junction, the route shall be the same.

At its intersection with DPV1 at Harquahala Junction, the DPV2 route shall turn north (paralleling the DPV1 line) for approximately 2.4 miles to where it shall cross Interstate 10 (I-10), and then proceed 3.7 miles to a point northeast of Burnt Mountain. From there the route shall turn west and roughly parallel the north side of I-10 and the Central Arizona Project Canal for approximately 20 miles into La Paz County, then turn

southwest, crossing to the south of I-10 and proceeding approximately 5 miles to a point where it meets the El Paso Natural Gas Company (EPNG) pipeline. The route shall parallel the EPNG pipeline and DPV1 for approximately 56 miles, across the Ranegras Plain where a series capacitor bank shall be constructed and through La Posa Plain. The route may follow or deviate from SCE's proposed route in the Kofa National Wildlife Reserve (Kofa) area. The route shall cross over Arizona Highway 95 and proceed into the Dome Rock Mountains to the summit of Copper Bottom Pass. The route shall turn southwest and descend the western slope of the Dome Rock Mountains to reach the Colorado River.

The route shall cross the Colorado River into California and generally follow the DPV1 right of way to SCE's Devers substation. The route shall pass into the Palo Verde Valley, five miles south of Blythe, California and shall proceed westerly to the top of the Palo Verde Mesa and then turn northwest to a point two miles south of I-10 and five miles southwest of Blythe Airport. At this point, the route shall turn west following the DPV1 line to a point five miles east of Desert Center. DPV2 shall either follow the DPV1 route for 10.6 miles or the North of Desert Center route for 11.8 miles north of I-10 and Desert Center to avoid the Alligator Rock Area of Critical Environmental Concern (ACEC). On the west side of Alligator Rock ACEC and south of I-10, the route shall continue west for another 24 miles, passing a site where a series capacitor shall be constructed, to a point in Shavers Valley where it shall turn north and cross I-10 about two miles east of the Cactus City Rest Stop. After crossing I-10, the route shall continue west-northwest, parallel to the DPV1 line for 46 miles to the Devers substation.

The route west of the Devers substation shall leave Devers in a westerly direction paralleling SCE's existing Devers-Valley No. 1 line for 41.6 miles. The route shall cross into the San Bernardino National Forest and the Santa Rosa and San Jacinto Mountains National Monument and parallel the Devers-Valley

No. 1 line westerly and southwesterly until it terminates at SCE's Valley substation.

3. SCE shall pursue good-faith efforts to reach a commercially reasonable agreement and seek the additional authorizations needed for construction of Harquahala Junction. SCE is authorized to terminate the Devers-Harquahala transmission line at Harquahala Junction or, if Harquahala Junction does not receive the needed approvals in Arizona or is otherwise not feasible, at the Harquahala Generating Company switchyard.

4. Official notice is taken that the United States Fish and Wildlife Service (USFWS) has issued a preliminary Determination of Incompatibility regarding construction of DPV2 through Kofa as proposed by SCE.

5. SCE is authorized to construct a route in the Kofa area that is acceptable to the USFWS and other permitting agencies, subject to a showing, if a proposed routing modification causes expected DPV2 costs to exceed the maximum cost adopted in this Order, that the routing modification is not detrimental to the cost effectiveness of DPV2.

6. SCE is authorized to construct the North of Desert Center alternative or, if the United States Department of Interior, Bureau of Land Management (BLM) does not authorize the North of Desert Center alternative, to construct DPV2 on a route segment through the Alligator Rock ACEC that is acceptable to BLM if the route segment received full consideration in the Final Environmental Impact Report/Environmental Impact Statement (Final EIR/EIS) for DPV2 or if it deviates from one of the reviewed segments solely within BLM land.

7. If SCE requests Commission authorization to construct the Midpoint substation or any other facilities related to integration of DPV2 and the Desert Southwest transmission project, SCE shall address environmental and other

impacts of upgrades to DPV2 that would be undertaken to integrate DPV2 and the Desert Southwest transmission project.

8. SCE is authorized to construct the Devers-Valley No. 2 transmission line as part of the DPV2 project.

9. SCE shall, as a condition of the CPCN, design and construct DPV2 to increase the transfer capability between southern California and Arizona by at least 1,200 megawatts (MW) and shall turn over at least 1,200 MW of transfer capability to the California Independent System Operator (CAISO).

10. Pursuant to Pub. Util. Code § 1005.5(a), the maximum cost determined to be reasonable and prudent for the DPV2 project, including pension and benefits, and administrative and general expenses, but excluding Allowance for Funds Used During Construction, is \$545,285,000 in 2005 dollars, to be decreased by \$24,080,000 if the Devers-Harquahala line is terminated at Harquahala Junction and increased by \$8,282,000 if the Alligator Rock – North of Desert Center route segment is used. The Handy-Whitman Index of Public Utility Construction Costs shall be used in assessing compliance with the authorized maximum cost.

11. Once SCE has developed a final detailed engineering design-based construction estimate for the final route, if this estimate is one percent or more lower than the authorized maximum reasonable and prudent cost identified in Conclusion of Law 10, SCE shall, within 30 days, file an advice letter to show cause why the Commission should not adopt a lower amount as the maximum reasonable and prudent cost to reflect the final estimate.

12. If SCE's final detailed engineering design-based construction estimate for the authorized project exceeds the authorized maximum cost, SCE shall, within 30 days, file an advice letter to seek an increase in the approved maximum cost

pursuant to § 1005.5(b), and shall address whether the cost increases affect the cost effectiveness and need for the DPV2 project.

13. As low-cost electric and magnetic field (EMF) mitigation, SCE shall increase tower and conductor heights by 20 feet along those portions of the DPV2 transmission corridor where there are residential properties within 50 feet of the side of the right of way closer to the DPV2 line. SCE shall apply this low-cost EMF mitigation where there are existing residential properties and where development of new residences is underway at the time SCE undertakes final DPV2 project design.

14. SCE shall amend its EMF management plan to apply its no-cost 500 kV EMF management techniques to the Devers-Valley corridor in addition to the Devers-Harquahala corridor, and to incorporate the low-cost EMF mitigation adopted in Ordering Paragraph 13.

15. SCE shall, as a condition of the CPCN, build the DPV2 project in accordance with its EMF management plan as modified consistent Ordering Paragraph 14.

16. SCE shall, prior to commencing construction, submit a detailed EMF management plan for approval of the Commission's Energy Division. The plan shall describe in detail each mitigation element, the cost of each element, and the percentage by which that mitigation will reduce EMF levels.

17. Mitigation measure B-16a proposed in the Final EIR/EIS is modified as follows:

B-16a **Prepare and implement a raven control plan.** SCE shall prepare a common raven control plan that identifies the purpose of conducting raven control, provides training in how to identify raven nests and how to determine whether a nest belongs to a raven or a raptor species, describes the seasonal limitations on disturbing nesting raptors species (excluding ravens), describes the procedure

for obtaining a permit from the USFWS's Division of Migratory Birds, and describes procedures for documenting the activities on an annual basis. SCE shall gain approval of the plan from the USFWS's Division of Migratory Birds. SCE shall provide this raven control plan to all transmission line companies that conduct operations within the ROW.

18. The second paragraph in Section 1.1.4 in the Executive Summary of the Final EIR/EIS is modified as follows:

No local discretionary (e.g., use) permits are required, since the CPUC has preemptive jurisdiction over the construction, maintenance, and operation of SCE facilities in California. SCE would still have to obtain all ministerial building and encroachment permits from local jurisdictions, and the CPUC's General Order 131-D requires that, in locating electric facilities such as DPV2, SCE consult with local agencies regarding land use matters. The CPUC's authority does not preempt special districts, such as the South Coast Air Quality Management District, or other State agencies or the federal government.

19. The mitigation measures contained in Attachment A to this decision are adopted.

20. The mitigation monitoring and reporting program contained in Section X of Attachment B to this decision is adopted.

21. SCE shall, as a condition of the CPCN, comply with all applicable mitigation measures specified in Attachment A attached hereto, as directed by the Commission's Executive Director or his designee(s). SCE shall work with the Commission's Energy Division to create detailed maps for use in construction and mitigation monitoring.

22. The Executive Director shall supervise and oversee construction of the project insofar as it relates to monitoring and enforcement of the adopted mitigation measures contained in Attachment A to this decision. The Executive Director may delegate these duties to one or more Commission staff members or

outside staff. The Executive Director is authorized to employ staff independent of the Commission staff to carry out such functions, including, without limitation, the on-site environmental inspection, environmental monitoring, and environmental mitigation supervision of the construction of the project. Such staff may be individually qualified professional environmental monitors or may be employed by one or more firms or organizations. In monitoring the implementation of the adopted mitigation measures, the Executive Director shall attribute the acts and omissions of SCE's employees, contractors, subcontractors, or other agents to SCE. SCE shall comply with all orders and directives of the Executive Director concerning implementation of the adopted mitigation measures.

23. The findings required by California Environmental Quality Act (CEQA) Guidelines Section 15091, as contained in Attachment B to this decision, are adopted.

24. Section H.1.3 in the Final EIR/EIS is deleted.

25. With the modifications adopted in Ordering Paragraphs 17, 18, and 24, the Final EIR/EIS for the DPV2 project is certified pursuant to CEQA.

26. The Commission finds that the DPV2 project will provide substantial benefits, in that it will provide significant economic benefits for CAISO-area ratepayers, increase the reliability of the interstate transmission network, increase operational flexibility, and provide insurance value as an economic hedge against low-probability, high-impact events. The Commission finds that the DPV2 project's unavoidable impacts are acceptable in light of these substantial benefits, which constitute an overriding consideration warranting approval of the project, despite each and every unavoidable impact.

27. SCE shall file a written notice with the Commission, served on all parties to this proceeding, of its agreement, executed by an officer of SCE duly authorized (as evidenced by a resolution of its board of directors duly authenticated by a secretary or assistant secretary of SCE) to acknowledge SCE's acceptance of the conditions set forth in the Ordering Paragraphs of this decision. Failure to file such notice within 75 days of the effective date of this decision shall result in the lapse of the authority granted by this decision.

28. The Executive Director shall file a Notice of Determination for the project as required by CEQA and the regulations promulgated pursuant thereto.

29. Upon satisfactory completion of the project, SCE shall file a notice of completion with the Executive Director by the Energy Division.

30. SCE's right to construct the DPV2 project as set forth in this decision shall be subject to all other necessary federal, State and local permitting processes and approvals.

31. SCE's motion to submit late-filed Exhibit 43 is granted.

32. SCE shall pay all outstanding Commission invoices for Division of Ratepayer Advocates (DRA) consultant expenses within five days of the effective date of this order. In all other respects, SCE's motion regarding reimbursement of DRA consultant expenses is denied.

33. Application 05-04-015 is closed.

This order is effective today.

Dated January 25, 2007, at San Francisco, California.

MICHAEL R. PEEVEY
President
DIAN M. GRUENEICH
JOHN A. BOHN

A.05-04-015 ALJ/CFT/sid

RACHELLE B. CHONG
Commissioners

ATTACHMENT A

Mitigation Measures

All mitigation measures presented in the Final EIR/EIS are listed below. The four measures at the end of the list would apply only to alternative routes; all other measures apply to the Proposed Project or to all alternatives. Mitigation measure B-16a in the Final EIR/EIS is modified as contained herein.

Measures Applicable to the Proposed Project and All Alternatives

Biological Resources

B-1a Prepare and implement a Habitat Restoration/Compensation Plan. SCE shall restore all areas disturbed by project construction, including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations that are removed during construction of the Proposed Project. Where onsite restoration is planned for mitigation of temporary impacts to sensitive vegetation communities, SCE shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC/BLM. Hydroseeding, drill seeding, or an otherwise proved restoration technique shall be utilized on all disturbed surfaces using a locally endemic native seed mix approved by the CPUC/CDFG/AGFD/FWS and BLM. SCE shall flag the limits of disturbance at each construction site. The Plan shall incorporate the measures identified in the June 2006 Memorandum of Understanding regarding vegetation management along rights-of-way for electrical transmission and distribution facilities on Federal lands. In project areas that occur in the WRCMSHCP plan area, SCE shall use the applicable Best Management Practices identified in the WRCMSHCP.

The creation or restoration of habitat shall be monitored for five years after mitigation site construction, or until established success criteria are met, to assess progress and identify potential problems with the restoration site. Remedial activities (e.g., additional planting, weeding, or erosion control) shall be taken during the monitoring period if necessary to ensure the success of the restoration effort. If the mitigation fails to meet the established performance criteria after the five-year maintenance and monitoring period, monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise noted by the CPUC/BLM.

B-1b Coordinate tower placement with USFWS/BLM. Where the proposed route crosses the Kofa National Wildlife Refuge, SCE shall coordinate with the U.S. Fish and Wildlife Service, Division of Refuges' refuge management personnel to determine specific tower site and spur road locations in order to minimize habitat disturbance and/or the loss of valuable habitat features. SCE shall demonstrate compliance with this measure prior to construction.

B-2a Conduct invasive and noxious weed inventory. SCE shall survey the project corridor, including access roads, for populations of invasive and noxious weeds prior to the start of construction. All populations of invasive and noxious weeds within 500 feet of each tower location shall be flagged prior to construction. The Applicant shall submit a Noxious Weed Control Plan to BLM, CPUC, ADGF, CDFG, and/or USFWS at least 60 days prior to the start of construction. The weed control plan shall specify the location of existing weed populations;

ATTACHMENT A

measures to control introduction and spread of noxious weeds in the project corridor; worker training, specifications, and inspection procedures for construction materials and equipment used in the project corridor; post-construction monitoring for noxious weeds; and eradication and control methods.

Known populations of invasive and noxious weeds in the project corridor shall be evaluated by BLM, CPUC, CDFG, and USFWS to identify candidates for eradication. Selected weed populations shall then be eradicated prior to construction.

All seeds and straw material shall be certified weed free. All gravel and fill material used during project construction and maintenance shall be certified weed free by the local County Agriculture Commissioner's Office.

B-2b Implement control measures for invasive and noxious weeds. SCE shall adhere to the BLM management guidelines for reducing the potential for the introduction of noxious weeds and invasive, non-native plant species by implementation of the following standards:

- **Wash all equipment and vehicles.** Vehicles and all equipment must be washed BEFORE AND AFTER entering all project sites unless otherwise directed in writing by the BLM. This includes wheels, undercarriages, bumpers and all parts of the vehicle. In addition, all tools such as chain saws, hand clippers, pruners, etc., must also be washed BEFORE AND AFTER entering all project areas. For example, vehicles traveling into contaminated areas are the main dispersal mechanism for yellow star-thistle. All washing must take place where rinse water is collected and disposed of in either a sanitary sewer or a landfill.
- **Keep written logs.** When vehicles and equipment are washed, a daily log must be kept stating the location, date and time, types of equipment, methods used and staff present. The log shall contain the signature of the responsible crewmember.
- **Written logs will be available** for CPUC/BLM inspection and shall be turned in to BLM on a weekly basis.
- **Post-construction weed abatement on the Coachella Valley Preserve.** Post-construction follow-up weed abatement will be conducted on the work areas within the Coachella Valley Preserve and Kofa National Wildlife Refuge. Weed abatement will be conducted during the spring following construction and prior to when the weeds establish flowers or produce seeds.

B-5a Conduct pre-construction surveys and monitoring for breeding birds. SCE shall conduct protocol level surveys for nesting birds if construction activities are scheduled to occur during the breeding season for raptors and other migratory birds. Surveys shall be conducted in areas within 500 feet of tower sites, laydown/staging areas, substation sites, and access road/spur road locations. SCE shall be responsible for designating a CPUC/BLM-approved qualified biologist who can conduct pre-construction surveys and monitoring for breeding birds. If State or federally listed birds with active nests are found, a biological monitor shall establish a 500-foot buffer around the nest and no activities will be allowed within the buffer until the young have fledged from the nest or the nest fails. The biological monitor shall conduct regular monitoring of the nest to determine success/failure and to ensure that project activities are not conducted within the 500-foot buffer until the nesting cycle is complete or the nest fails. The biological monitor shall be responsible for documenting the results of the surveys and the

ATTACHMENT A

ongoing monitoring. A 300-foot buffer shall be implemented in the event that raptors or other species protected under the MBTA are located. This buffer will be evaluated after consultation with the CPUC/BLM/CDFG/and USFWS.

- B-6a** **Develop a transplanting plan.** In coordination with the BLM, SCE shall prepare a transplanting plan in compliance with both Arizona and California laws and regulations regarding native and sensitive plants, prior to project construction activities. The plan will provide details on the plants being transplanted, including which species and how many individuals of each species; where the plants will be transplanted; how the plants will be transplanted; how the plants will be maintained during the transplanting efforts; and if the plants will be used to re-vegetate disturbed areas of the construction site. As a condition of the plan, a pre-construction survey will be conducted to mark (using bright-colored flagging) all plants that will be transplanted. Some cacti will need to be transplanted facing the same direction as they currently face (in other words, the north side of the plant must stay facing the north); these cacti will be identified in the plan and appropriately marked to identify which side faces north. For listed plant species SCE shall identify if the plants can be avoided. If avoidance is not possible, SCE shall purchase off site mitigation in coordination with the USFWS and CDFG.
- B-7a** **Avoid Colorado River.** All tower pads, equipment laydown areas, and pulling sites would be located outside flowing portions of the Colorado River and flowing tributaries of the river.
- B-7b** **Conduct pre-construction tortoise surveys.** Prior to construction, SCE shall survey the transmission line corridor for desert tortoise burrows and pallets within fourteen (14) days preceding construction. Tortoise burrows and pallets encountered within the construction zone (if any) will be conspicuously flagged by the surveying biologist(s) and avoided during all construction activities.
- During construction activities, SCE shall inspect under equipment and vehicles prior to moving equipment. If tortoises are encountered, the vehicle will not be moved until such animals have voluntarily moved to a safe distance away from the parked vehicle or a qualified biologist moves the tortoise.
 - SCE shall monitor construction activities in all areas with the potential to support desert tortoise.
 - Desert tortoises will be handled only by a FWS/CDFG permitted and authorized tortoise handler and only when necessary. New latex gloves will be used when handling each desert tortoise to avoid the transfer of infectious diseases between animals. Desert tortoises will be moved the minimum distance possible within appropriate habitat to ensure their safety. In general, desert tortoises will not be moved in excess of 1,000 feet for adults and 300 feet for hatchlings.
 - Desert tortoises that are found above ground and need to be moved will be placed in the shade of a shrub. All desert tortoises removed from burrows will be placed in an unoccupied burrow of approximately the same size as the one from which it was removed. All excavation of desert tortoise burrows will be done using hand tools, either by, or under the direct supervision of, an authorized tortoise handler. If an existing burrow is unavailable, an authorized tortoise handler will construct or direct the construction of a burrow of similar shape, size, depth, and orientation as the original burrow. Desert tortoises moved

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during inactive periods will be monitored for at least two days after placement in the new burrows to ensure their safety. An authorized tortoise handler will be allowed some judgment and discretion to ensure that survival of the desert tortoise is likely.

- If desert tortoises need to be moved at a time of the day when ambient temperatures could harm them (less than 40 degrees F or greater than 90 degrees F), they will be held overnight in a clean cardboard box. These desert tortoises shall be kept in the care of an authorized tortoise handler under appropriate controlled temperatures and released the following day when temperatures are favorable. All cardboard boxes will be appropriately discarded after one use.
- All desert tortoises moved will be marked for future identification. An identification number using the acrylic paint/epoxy covering technique should be placed on the fourth costal scute. No notching would be authorized.

B-7c Purchase mitigation lands for impacts to tortoise habitat. Following construction, SCE shall acquire lands to compensate for the loss of tortoise habitat within the Category II and III management areas in Arizona and California. The amount of land to be acquired will depend on the acreage of disturbance within these management areas. Acquired lands will be in a nearby area of good tortoise density and within tortoise habitat. BLM and SCE shall conduct a field inspection of the disturbed areas after completion of construction of the transmission line to determine the exact acreage required for compensation. The lands purchased will be transferred to the United States and be administered by the BLM. Land may be transferred to the BLM and/or incorporated into an existing management area.

B-7d Purchase mitigation lands for impacts to fringe-toed lizard habitat. SCE shall purchase or enhance lands for all permanent loss of habitat that are within the Coachella Valley fringe-toed lizard Critical Habitat unless otherwise directed by the USFWS Biological Opinion for the Proposed Project. Mitigation Lands shall be determined in consultation with the USFWS, CDFG, and CPUC.

Clearing work areas of CVFTL in the Coachella Valley Preserve. A temporary fence or other effective barrier that does not allow lizards to enter the work areas shall be constructed around the perimeter of each of the work areas in the refuge. Any lizards found within the barrier shall be relocated outside of the work areas.

Duration of Surveys for fringe-toed lizard and flat-tailed horned lizard. Surveys for CVFTL and FTHL shall be conducted during the appropriate seasons (May 1 through the end of summer) and conditions for species identification. The duration of the surveys shall coincide with the duration of construction activities in potential habitat for these species (particularly on the Coachella Valley Preserve) that occurs during the summer season. For any areas of suitable habitat, this measure shall apply. Construction shall not occur on the Preserve or in other potential habitat areas outside of the detection period for FTHL.

B-7e Conduct focused surveys for California gnatcatchers. SCE shall conduct protocol level surveys for California Gnatcatchers in all areas supporting suitable coastal sage or Riversidean sage scrub habitats that may be affected by the project (San Bernardino to Vista Substation and San Bernardino Junction to San Bernardino Substation). This will include a minimum 300-foot buffer around construction areas. Presence/absence of this species shall be determined prior to construction activities. If direct impacts to coastal California gnatcatcher

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occupied habitat cannot be avoided, then impacts to this species shall be addressed through either the Section 7 or Section 10(a)(1)(B) Process under the Federal Endangered Species Act of 1973, as amended and consistent with the WRCMSHCP. SCE shall complete compliance with the Federal Endangered Species Act prior to Project construction. After definition of suitable habitat, the following requirements apply:

- Construction activities shall be restricted within coastal sage scrub habitat during the gnatcatcher breeding season (March 15-July 31);
- SCE shall implement the applicable Best Management practices in the WRCMSHCP;
- SCE shall restore, create, or enhance on site coastal sage scrub habitat; and/or
- SCE shall purchase land or mitigation bank credits at an appropriate ratio to offset impacts to gnatcatchers and their habitat.

B-7f Conduct focused surveys for Stephens' kangaroo rat and San Bernardino kangaroo rat. Prior to the implementation of construction in areas that support suitable habitat for Stephens' kangaroo rat and San Bernardino kangaroo rat (Calimesa and San Timoteo Canyon). SCE shall conduct focused surveys to determine if sign (burrows, scat, and etc.) of these species is present in all areas within 100 feet that would be permanently or temporarily affected by construction activities. All surveys shall be conducted by a qualified biologist who holds the appropriate Federal FWS permits to conduct trapping surveys for these species. If sign is found to be present, then SCE shall conduct focused trapping surveys according to accepted protocols to determine presence/absence of these species. If these species are found, then SCE shall implement measure to avoid direct impacts, including the placement of exclusion fencing around work areas where impacts will occur, trapping of animals from inside impact areas, and placement of those animals outside of exclusion fencing until construction is completed. A qualified biological monitor shall be present during construction to ensure that animals are not harmed. Following completion of construction, SCE shall remove all exclusion fencing and recontour the soils to the pre-construction condition.

B-8a Conduct surveys for listed plant species. SCE shall conduct focused surveys for listed and sensitive plants prior to construction. Surveys shall be conducted during the appropriate floristic period necessary for the identification of sensitive plant species in all suitable habitat located within the project ROW and within 100' of all surface disturbing activities.

Populations of sensitive plants shall be flagged and mapped prior to construction. If listed plants are located during the focused surveys, then modification of the placement of towers, access roads, laydown areas, and other ground disturbing activities would be implemented in order to avoid listed plants. If listed plants cannot be avoided, SCE shall be responsible for the translocation of plants and/or collection of seeds from existing populations that would be impacted and the planting/seeding of these plants in adjacent suitable portions of the ROW that would not be affected by Proposed Project construction or maintenance activities.

B-9a Conduct pre-construction surveys. SCE shall conduct pre-construction surveys for sensitive wildlife in any area subject to project disturbance. Surveys shall be conducted during a time of year when these species are known to be active. The location of sensitive species identified during the pre-construction surveys shall be identified on project maps.

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- B-9b Conduct biological monitoring.** SCE shall conduct biological monitoring of the project area including the laydown, staging, access roads, and any area subject to project disturbance. The biological monitor shall look for sensitive wildlife species (including forest watch list animals and Forest Service Region 5 sensitive species) that may be located within or immediately adjacent to the construction areas. If sensitive species are found, the biological monitor shall move them out of harm's way (listed species require take authorization) to avoid direct impacts to these species. In the event that the wildlife species may cause harm to the biologist, the biologist shall notify the construction crews and monitor the species until it moves out of harms way. The results of all monitoring shall be recorded in daily monitoring notes that shall be included as part of the required monitoring reports for the project. The SCE shall notify the CPUC/BLM if any sensitive species are located during construction of the project. SCE shall notify the Forest Service of all sensitive species found on Forest Service land.
- B-9c Implement a Worker Environmental Awareness Program.** A Worker Environmental Awareness Program (WEAP) shall be implemented for construction crews by a qualified biologist(s) provided by SCE and approved by the CPUC/BLM prior to the commencement of construction activities. Training materials and briefings shall include but not be limited to, discussion of the Federal and State Endangered Species Acts, the consequences of noncompliance with these acts, identification and values of sensitive plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on forest service lands and identification of Forest Service sensitive species and MIS wildlife species, hazardous substance spill prevention and containment measures, and review of mitigation requirements. Training materials and a course outline shall be provided to the CPUC and BLM for review and approval at least 30 days prior to the start of construction. Training materials and updates of training materials shall also be provided to the Forest Service for review and comment. SCE shall provide to the CPUC and BLM a list of construction personnel who have completed training, and this list shall be updated by SCE as required when new personnel start work. No construction worker may work in the field for more than 5 days without receiving the WEAP.
- B-9d Conduct pre-construction reptile surveys.** Prior to construction, SCE shall conduct surveys in areas of suitable habitat for Sonoran desert tortoise, common chuckwalla, banded Gila monster, and desert rosy boa within 48 hours prior to the start of construction activities. If common chuckwalla, banded Gila monsters and/or desert rosy boas are found on the construction site, they will be relocated to nearby suitable habitat outside the construction area. Following the clearance surveys, exclusion fencing will be erected or a biological monitor will be onsite during construction activities.
- If potentially suitable burrows or rock piles are found, they will be checked for occupancy. Occupied burrows will be flagged and avoided (employing a 50-foot buffer) during construction. If the burrow cannot be avoided, it will be excavated and the occupant relocated to an unoccupied burrow outside the construction area and of approximately the same size as the one from which it was removed. If an existing burrow is unavailable, the biologist will construct or direct the construction of a burrow of similar shape, size, depth, and orientation as the original. Trenches, holes, or other excavations will be examined for banded Gila monster prior to filling. If individuals are found, the biological monitor will relocate them to nearby suitable habitat.
 - During construction, if a common chuckwalla, banded Gila monster, and/or desert rosy boa occur on the project site, construction activities adjacent to the individual's location

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will be halted and the animal will be allowed to move away from the construction site. If the individual is not moving, a qualified biologist will relocate it to nearby suitable habitat outside the construction area. It shall be placed in the shade of a shrub. The Forest Service will be notified of any sensitive wildlife identified on NFS lands. Also during construction, if a Sonoran desert tortoise occurs on the project site, construction activities adjacent to the individual's location will be halted and the *Guidelines for Handling Sonoran Desert Tortoises Encountered During Construction Projects* will be followed by qualified personnel.

B-9e Conduct pre-construction surveys and owl relocation. Prior to construction, SCE shall conduct pre-construction surveys for the western burrowing owl. Surveys shall be conducted prior to ground disturbance activities in appropriate areas within the potential impact areas of the project to determine the presence of burrowing owls and to ensure clearance of these areas. If active owl burrows are discovered during pre-construction surveys, owls would be evicted from the burrows using either active or passive techniques as recommended by the BLM and Burrowing Owl Consortium. Owl relocation, as well as discouragement of owls from returning to the site, will occur in the following manner:

- During the non-breeding season (September 1 through January 31), burrowing owls occupying the Proposed Project site will be evicted by passive relocation. Passive relocation would include installation of one-way doors on burrow entrances that would let owls out of the burrow but would not let them back in.
- If construction is to occur during the breeding season (February 1 through August 31) and prior to the relocation of the owls, 75-meter (246-foot) protective buffers would be maintained around burrows occupied by owls until a BLM approved biologist approves other action. Other actions could include passive relocation if it is determined that owls have not begun laying eggs or postponement of construction in the area until the young are fledged and no longer dependent upon the nest burrow.
- Once fledglings are capable of independent survival and adult non-breeding owls have successfully been relocated offsite, potential owl habitat (squirrel burrows) would be collapsed in order to keep the owls from returning. Ground squirrels would be removed from the site by trapping and relocation or by other approved means. Following squirrel removal, existing ground squirrel burrows would be destroyed.

B-9f Perform construction outside of breeding and lambing period. Construction activities conducted within suitable habitat near Burnt Mountain, Harquahala Mountain, and Kofa NWR shall not occur during the period of the year when bighorn sheep are lambing (from January 1 to April 30). A pre-construction survey for bighorn sheep shall be conducted on Forest Service lands prior to construction and maintenance of the transmission lines. If bighorn sheep are found, then SCE shall consult with the Forest Service, USFWS, and Bighorn Institute to identify appropriate avoidance measures.

B-9g Conduct pre-construction surveys and relocation for American badger. Prior to construction, SCE shall conduct pre-construction surveys for American badger. Surveys will be conducted prior to ground disturbance activities in areas that contain habitat for this species. Badger dens located outside the project area shall be flagged for avoidance. Unoccupied dens located in the right of way shall be covered to prevent the animal from re-occupying the den prior to construction. If occupied dens are identified in the area of the ROW that must be disturbed,

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the CDFG/BLM/Forest Service shall be consulted regarding options for action. Hand-excavation is an option if occupied dens cannot be avoided, but alternatives shall be considered due to potential danger to biologists. Dens shall be hand-excavated only before or after the breeding season (February 1–May 30). Any relocation of badgers shall take place after consultation with the BLM, Forest Service, and CDFG.

- B-9h** **Conduct pre-construction surveys for roosting bats.** SCE shall conduct surveys focused surveys for suitable roosting habitat or nursery sites for sensitive bats at the tower location, access/spur roads, and laydown/staging areas that occur in rocky areas or in areas where caves or old mines are present. If suitable roosting/nursery sites are found, then focused surveys shall be conducted to determine if the sites support sensitive bat species. If sensitive bat species occur at these sensitive roosting/nursery sites, then tower-specific adjustments and adjustments of the locations of access/spur roads and laydown/staging areas shall be made to avoid these sites. If towers, access/spur roads, and/or laydown/staging areas cannot avoid these sites, then construction of the towers, roads, and establishment of laydown/staging areas shall be delayed until the breeding cycles for the sensitive bats are completed. SCE shall consult with a bat specialist in order to determine when the breeding cycle for the sensitive bats are completed. SCE shall document the results of the surveys and any avoidance of roosting/nursery sites for sensitive bats.
- B-9i** **Schedule construction when the Coachella Valley round-tailed squirrel is dormant.** SCE shall conduct pre-construction surveys for Coachella Round Tailed Squirrels prior to construction to identify locations of nesting colonies. Placement of footings, roads, and laydown areas shall avoid nesting colonies of this species. If this species is identified within the ROW, construction activities shall be scheduled only during periods when this species is dormant (between August 1 and February 28).
- B-13a** **Demonstrate compliance with the Western Riverside County MSHCP.** SCE shall provide documentation that it has complied with the provisions of the MSHCP.
- B-13b** **Implement the Best Management Practices required by the Western Riverside County MSHCP.** SCE shall provide documentation that it has implemented the Best Management Practices set forth in Appendix C of the Western Riverside MSHCP.
- B-15a** **Utilize collision-reducing techniques in installation of transmission lines.** SCE shall install the transmission line utilizing APLIC standards for collision-reducing techniques as outlined in "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994 (APLIC, 1996)."
- Placement of towers and lines will not be located significantly above existing transmission line towers and lines, topographic features, or tree lines to the maximum extent practicable.
 - Overhead lines that occur significantly above the above-mentioned features and that are located in highly utilized avian flight paths will be marked utilizing aerial marker spheres, swinging plates, spiral vibration dampers, bird flight diverters, avifauna spirals, or other diversion device as to be visible to birds and reduce avian collisions with lines.
- B-16a** **Prepare and implement a raven control plan.** SCE shall prepare a common raven control plan that identifies the purpose of conducting raven control, provides training in how to identify raven nests and how to determine whether a nest belongs to a raven or a raptor species, describes the seasonal limitations on disturbing nesting raptors species (excluding ravens), describes the procedure for obtaining a permit from the USFWS's Division of Migratory Birds, and describes procedures for documenting the activities on an annual basis. SCE shall gain approval of the plan

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from the USFWS's Division of Migratory Birds. SCE shall provide this raven control plan to all transmission line companies that conduct operations within the ROW.

- B-18a** **No Activities in Riparian Conservation Areas.** The final project design will include protective measures that prohibit construction activities on NFS lands in Riparian Conservation Areas in compliance with the Forest Plan. Examples of activities that will NOT be allowed include ground disturbance, adding potable water to these areas while implementing erosion control measures, and removing water from the waterways.

Visual Resources

- V-1a** **Reduce visibility of construction activities and equipment.** Substation construction sites and all staging and material and equipment storage areas, including storage sites for excavated materials shall be appropriately located away from areas of high public visibility. If visible from nearby roads, residences, public gathering areas, or recreational areas, facilities, or trails, construction sites and staging and storage areas shall be visually screened using temporary screening fencing. Fencing will be of an appropriate design and color for each specific location. Additionally, avoid construction in areas visible from recreation facilities and areas during holidays and periods of heavy recreational use. This measure encompasses BLM permit requirements B-7.1 and B-7.2. SCE shall submit final construction plans demonstrating compliance with this measure to the BLM and CPUC for review and approval at least 60 days prior to the start of construction.
- V-1b** **Reduce construction night lighting impacts.** SCE shall design and install all lighting at construction and storage yards and staging areas such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized. SCE shall submit a Construction Lighting Mitigation Plan to the BLM and CPUC for review and approval at least 90 days prior to the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. SCE shall not order any exterior lighting fixtures or components until the Construction Lighting Mitigation Plan is approved by the BLM and CPUC. The Plan shall include but is not necessarily limited to the following:
- Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources is shielded to prevent light trespass outside the project boundary
 - All lighting shall be of minimum necessary brightness consistent with worker safety
 - High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.
- V-2a** **Reduce in-line views of land scars.** Construct access or spur roads at appropriate angles from the originating, primary travel facilities to minimize extended, in-line views of newly graded terrain. Contour grading should be used where possible to better blend graded surfaces with existing terrain. SCE shall submit final construction plans demonstrating compliance with this measure to the BLM and CPUC for review and approval at least 60 days prior to the start of construction.

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- V-2b** **Reduce visual contrast from unnatural vegetation lines.** In those areas where views of land scars are unavoidable, the boundaries of disturbed areas should be aggressively revegetated to create a less distinct and more natural-appearing line to reduce visual contrast. Furthermore, all graded roads and areas not required for on-going operation, maintenance, or access shall be returned to pre-construction conditions. This measure partially encompasses BLM permit requirement BLM B-6.9. SCE shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC for review and approval at least 60 days prior to the start of construction.
- V-2c** **Reduce color contrast of land scars.** In those areas where views of land scars from sensitive public viewing locations are unavoidable, disturbed soils shall be treated with Eonite or similar treatments to reduce the visual contrast created by the lighter-colored disturbed soils with the darker vegetated surroundings. SCE will consult with the Authorized Officer on a site-by-site basis for the use of Eonite. This measure partially encompasses BLM permit requirement BLM B-6.4. SCE shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC for review and approval at least 60 days prior to the start of construction.
- V-3a** **Reduce visual contrast of towers and conductors.** The following design measures shall be applied to all new structures and conductors in order to reduce the degree of visual contrast caused by the new facilities:
- All new and replacement structures are to as closely as possible match the design of the existing structures with which they will be seen.
 - All new and replacement structures are to be paired as closely as possible with the existing structure(s) in the corridor in order to avoid or reduce the number of off-setting (from existing structures) tower placements.
 - All new and replacement structures are to match the heights of the existing DPV1 structures to the extent possible as dictated by variation in terrain.
 - All new and reconducted spans are to match existing conductor spans as closely as possible in order to avoid or reduce the occurrence of unnecessary visual complexity associated with asynchronous conductor spans, particularly at sensitive crossings such as Salome Highway, I-10, U.S. 95, Colorado River, SR 78, Dillon Road, SR 62, Whitewater Canyon Road, and San Timoteo Canyon Road.
 - All new conductors are to be non-specular in design in order to reduce conductor visibility and visual contrast.
 - To the extent feasible, no new access roads are to be constructed downhill from existing or proposed towers to reduce the potential for structure skylining.
- V-6a** **Reduce visual contrast associated with ancillary facilities.** SCE shall submit to BLM and CPUC a Surface Treatment Plan describing the application of colors and textures to all facility structures, buildings, walls, fences, and components comprising all ancillary facilities including substations/switchyards, series capacitor banks, and optical repeater stations. The Surface Treatment Plan must reduce glare and minimize visual intrusion and contrast by blending the facilities with the landscape. The Treatment Plan shall be submitted to BLM and CPUC for approval at least 90 days prior to (a) ordering the first structures that are to be color treated

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during manufacture, or (b) construction of any of the ancillary facility component, whichever comes first. If the BLM or CPUC notifies SCE that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SCE shall prepare and submit for review and approval a revised Plan. The Surface Treatment Plan shall include:

- Specification, and 11"x17" color simulations at life size scale, of the treatment proposed for use on project structures, including structures treated during manufacture
- A list of each major project structure, building, tower and/or pole, and fencing specifying the color(s) and finish proposed for each (colors must be identified by name and by vendor brand or a universal designation)
- Two sets of brochures and/or color chips for each proposed color
- A detailed schedule for completion of the treatment
- A procedure to ensure proper treatment maintenance for the life of the project.

SCE shall not specify to the vendors the treatment of any buildings or structures treated during manufacture, or perform the final treatment on any buildings or structures treated onsite, until SCE receives notification of approval of the Treatment Plan by the BLM and CPUC. Within 30 days following the start of commercial operation, SCE shall notify the BLM and CPUC that all buildings and structures are ready for inspection.

V-6c

Reduce night lighting impacts. SCE shall design and install all permanent lighting such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized. SCE shall submit a Lighting Mitigation Plan to the BLM and CPUC for review and approval at least 90 days prior to ordering any permanent exterior lighting fixtures or components. SCE shall not order any exterior lighting fixtures or components until the Lighting Mitigation Plan is approved by the BLM and CPUC. The Plan shall include but is not necessarily limited to the following:

- Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources is shielded to prevent light trespass outside the project boundary
- All lighting shall be of minimum necessary brightness consistent with worker safety
- High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.

V-40a

Reduce visual contrast of towers and conductors. The following design measures are to be applied to all new structures and conductors in order to reduce the degree of visual contrast caused by the new facilities: (a) all new structures are to as closely as possible match the design of the existing structures with which they will be seen; (b) all new structures are to be paired as closely as possible with the existing structure(s) in the corridor in order to avoid or reduce the number of off-setting (from existing structures) tower placements; (c) all new structures are to match the heights of the existing D-V1 structures to the extent possible as dictated by variation in terrain; (d) all new spans are to match existing conductor spans as closely as possible in order to avoid or reduce the occurrence of unnecessary visual complexity associated with asynchronous conductor spans, particularly at sensitive crossings such as SR

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62, I-10, SR 111, SR 243, SR 79, Gilman Springs Road, Ramona Expressway, Menifee Road, and SR 74; (e) all new conductors are to be non-specular in design in order to reduce conductor visibility and visual contrast, and (f) no new access roads are to be constructed downhill from existing or proposed towers to reduce the potential for skylining. SCE shall provide to the CPUC, BLM, and Forest Service a Project Design Plan demonstrating implementation of this measure at least 90 days prior to the start of construction, and shall not commence construction until the Project Design Plan has been approved by the CPUC, BLM, and Forest Service.

Land Use

L-1a Prepare Construction Notification Plan. Forty-five days prior to construction, SCE shall prepare and submit a Construction Notification Plan to the CPUC and the BLM for approval. The Plan shall identify the procedures to ensure that SCE will inform property and business owners of the location and duration of construction, identify approvals that are needed prior to posting or publication of construction notices, and include template copies of public notices and advertisements (i.e., formatted text). To ensure effective notification of construction activities, the plan shall address at a minimum the following components:

- **Public notice mailer.** Fifteen days prior to construction, a public notice mailer shall be prepared. The notice shall identify construction activities that would restrict, block, or require a detour to access existing residential properties, retail and commercial businesses, wilderness and recreation facilities, and public facilities (e.g., schools and memorial parks). The notice shall state the type of construction activities that will be conducted, and the location and duration of construction. SCE shall mail the notice to all residents or property owners within 300 feet of the right-of-way and to specific public agencies with facilities that could be impacted by construction. If construction delays of more than seven days occur, an additional notice shall be prepared and distributed.
- **Newspaper advertisements.** Fifteen days prior to construction, within a route segment, one round of newspaper advertisements shall be placed in local newspapers and bulletins. The advertisement shall state when and where construction will occur and provide information on the public liaison person and hotline identified below. If construction is delayed as noted above, an additional round of newspaper ads shall be placed to discuss the status and schedule of construction.
- **Public venue notices.** Thirty days prior to construction, notice of construction shall be posted at public venues such as trail crossings, rest stops, desert centers, resource management offices (e.g., Bureau of Land Management field offices, San Bernardino National Forest Ranger Station), and other public venues to inform residents and visitors to the purpose and schedule of construction activities. For public trail closures, SCE shall post information on the trail detour at applicable resource management offices and post the notice within two miles north and south of the detour. For recreation facilities, the notice shall be posted along the access routes to known recreational destinations that would be restricted, blocked, or detoured and shall provide information on alternative recreation areas that may be used during the closure of these facilities.
- **Public liaison person and toll-free information hotline.** SCE shall identify and provide a public liaison person before and during construction to respond to concerns of neigh-

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boring property owners about noise, dust, and other construction disturbance. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public. SCE shall also establish a toll-free telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures for handling and responding to calls shall be addressed in the Construction Notification Plan.

- L-1b** **Coordinate with the Central Arizona Project regarding canal crossings.** Prior to construction, SCE shall coordinate with the Central Arizona Water Conservation District and the BLM Phoenix Field Office, and shall obtain a license from the Central Arizona Water Conservation District for the areas where the project crosses the Central Arizona Project Canal. SCE shall submit the approved license to the CPUC and the BLM 30 days prior to the start of construction activities. The license or license attachments must identify specific locations where the crossings are permitted and any conditions of approval that have been agreed to by SCE, the Central Arizona Water Conservation District, and the BLM Phoenix Field Office.
- L-1c** **Provide proof of resolution of land acquisition issues for crossing of Agua Caliente Band of Cahuilla Indians tribal lands.** SCE shall negotiate in good faith to reach a mutually acceptable agreement with the allottee. If an agreement is reached, SCE shall consult and coordinate with the Planning Department of the Agua Caliente to provide the information and/or fees requested by the Planning Department regarding land use matters. If SCE and the allottee reach an agreement then SCE shall notify the Planning Department of the Agua Caliente, and if SCE and the Planning Department agree on the legal requirements, including appropriate waivers, SCE shall notify the BLM and the CPUC of the agreement; however if SCE and the Planning department are unable to reach an agreement, SCE shall notify the CPUC of the inability to reach agreement and the CPUC may hold a hearing within thirty days of notification. SCE reserves the right to institute eminent domain proceedings. SCE believes that a conditional use permit is not required.
- L-1d** **Coordinate with affected business owners.** Where private parking lots serving businesses would be blocked or partially blocked during construction, SCE shall either make prior arrangements with the business owner(s) to provide alternative parking within a reasonable walking distance (i.e., no more than 1,000 feet), or shall coordinate with affected business owners to arrange the construction schedule to ensure that the functions of the business(es) are not disrupted. Thirty days prior to construction, SCE shall submit documentation to the CPUC and the BLM that outlines the course of action that was taken to reduce impacts to businesses near construction areas.

The following measure applies only to the West of Devers portion of the Proposed Project:

- L-1e** **Coordinate construction schedule with public and community facilities.** SCE shall coordinate with the public and community facilities and services listed below regarding the construction schedule and duration in order to minimize impacts to these land uses. The purpose of this measure is to work with sensitive land uses that would be impacted by construction and to identify construction times/periods that would have the least impact to peak use of these public and community facilities. This coordination could result in limiting or avoiding construction during school sessions, identifying hauling routes that do not conflict with school commute routes, or working with the memorial parks to address funeral procession routes and noise sensitivities. Thirty days prior to construction, SCE shall document its coordination efforts

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including contact persons, information provided, and comments received, and submit this documentation to the CPUC and BLM.

- Schools near the project route: Beaumont Middle School and High School, Calvary Christian School, Chavez Elementary School, Terrace View Elementary School, public elementary school on East Canyon Vista Drive
- San Geronio Memorial Park
- Desert Lawn Memorial Park
- Banning Municipal Airport
- Grandview Baptist Church

Wilderness and Recreation

- WR-1a** **Coordinate construction schedule and activities with the authorized officer for the recreation area.** No less than 40 days prior to construction, SCE shall coordinate construction activities and the project construction schedule with the authorized officer of the recreation areas listed below. SCE shall schedule construction activities to avoid heavy recreational use periods, including major holidays, in coordination with, and at the discretion of the authorized officer. SCE shall locate construction equipment to avoid temporary preclusion of recreation areas per the recommendations of the authorized officer. SCE shall also prepare a public notice of construction activities consistent with Mitigation Measure L-1a (Prepare Construction Notification Plan). SCE shall document its coordination efforts with the authorized officer, and provide this documentation to the CPUC and the BLM 30 days prior to construction.
- WR-2a** **Coordinate with USFWS to improve impacted areas within Kofa National Wildlife Refuge.** SCE shall coordinate with the USFWS to improve impacted areas within the Kofa National Wildlife Refuge (NWR). The implementation of improvements would be conducted at the discretion of the authorized officer for the Kofa NWR, and may include the acquisition of private land in-holdings from willing sellers within the refuge boundaries, and the rehabilitation of abandoned mine sites and old roads within the refuge. SCE shall document its coordination with the authorized officer of the Kofa NWR, and must demonstrate that negotiations and subsequent improvements have been conducted to the satisfaction of the USFWS. Documentation shall be submitted to the CPUC and the BLM at least 30 days prior to operation of the project.
- WR-3a** **Coordinate tower and road locations with the authorized officer for the recreation area.** Where the proposed route crosses the recreation areas listed below, SCE shall coordinate with the authorized officer to determine specific tower site and spur road locations in order to minimize impacts to recreational resources. This coordination shall occur no less than 30 days prior to the start of construction. SCE shall document its coordination with the authorized officer and shall submit this documentation to the CPUC and the BLM prior to initiating project construction.
- WR-1b** **Provide a temporary detour for Pacific Crest National Scenic Trail users.** No less than 40 days prior to construction, SCE shall coordinate with the USDA Forest Service to establish a temporary detour of the trail to avoid hazardous construction areas. SCE shall prepare a public notice of the temporary trail closure and information on the trail detour consistent with Mitigation Measure L-1a (Prepare Construction Notification Plan). SCE shall document its

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coordination efforts with the USDA Forest Service and submit this documentation to the CPUC and the BLM 30 days prior to construction.

The following measure applies only to the West of Devers portion of the Proposed Project:

WR-1c **Coordinate with local agencies to identify alternative recreation areas.** SCE shall coordinate with the local parks and recreation departments regarding construction activities at the park and recreation facilities listed below, in order to identify alternative recreation sites that may be used by the public. SCE shall post a public notice at recreation facilities to be closed or limited during construction consistent with Mitigation Measure L-1a (Prepare Construction Notification Plan). SCE shall document its coordination with the parks and recreation departments and shall submit this documentation to the CPUC and the BLM 30 days prior to initiating project construction.

- Noble Creek Park
- Hulda Crooks Park
- Oak Valley Golf Club
- City of Loma Linda riding and hiking trail system

Agriculture

AG-1a **Establish agreement and coordinate construction activities with agricultural landowners.** Sixty (60) days prior to the start of project construction, Southern California Edison (SCE) shall secure a signed agreement with property owners of Farmland (Prime Farmland, Farmland of Statewide Importance, Unique Farmland) and Williamson Act lands that will be used for construction and operation of the project, access and spur roads, staging areas, and other project-related activities. The purpose of this agreement will be to set forth the use of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Williamson Act lands during construction in order to: (1) schedule proposed construction activities at a location and time when damage to agricultural operations would be minimized, and (2) ensure that any areas damaged or disturbed by construction are restored to a condition mutually agreed upon by the landowner and SCE.

SCE shall coordinate with the agricultural landowners in the affected areas where Farmland or Williamson Act land will be temporarily disturbed in order to determine when and where construction should occur in order to minimize damage to agricultural operations. This includes avoiding construction during peak planting, growing, and harvest seasons. If damage or destruction does occur, SCE shall perform restoration activities on the disturbed area in order to return the area to a pre-determined condition or the pre-construction condition, whichever option is agreed upon by the landowner and SCE. This could include activities such as soil preparation, regrading, and reseeding. This measure applies to agricultural landowners with land that is impacted by the Proposed Project. SCE shall provide proof of the continued use of Farmland and/or Williamson Act lands through the submittal of a signed agreement between an individual property owner and SCE. The signed agreements shall be submitted to the CPUC and BLM for review and approval prior to the start of construction.

AG-4a **Locate transmission towers and pulling/splicing stations to avoid agricultural operations.** SCE shall site transmission towers and pulling/splicing stations in locations that minimize

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impacts to active agricultural operations. Specifically, SCE shall comply with the following measures when siting transmission towers and splicing/pulling stations within areas where active cultivated farmland would be removed through the presence of structures:

- SCE shall avoid orchards, vineyards, row crops, and furrow-irrigated crops where towers would interfere with irrigation and harvest activities.
- SCE shall avoid irrigation canals and ditches.
- SCE shall align towers adjacent to field boundaries and parallel to rows (if located in row crops), and shall avoid diagonal orientations and angular alignments within agricultural land.
- SCE shall match tower spans with existing DPV1 towers within agricultural land.
- SCE shall construct towers with heights and spacing to minimize safety hazards to aerial applicators flying in the Palo Verde Valley (CA) and other agricultural areas;
- SCE shall consult with the Palo Verde Irrigation District (PVID) regarding tower placement to minimize disruption to PVID facilities;

SCE shall document and provide proof of compliance with the above listed items 90 days prior to the start of Proposed Project construction. This documentation shall be submitted to the CPUC and the BLM for review and approval prior to the start of construction, and reviewed with affected landowners during coordination presented in Mitigation Measure AG-1a (Establish agreement and coordinate construction activities with agricultural landowners).

Cultural and Paleontological Resources

C-1b **Avoid and protect potentially significant resources.** On the basis of preliminary National Register of Historic Places (NRHP) eligibility assessments (Mitigation Measure C-1a) the BLM and CPUC may require the relocation of the line, ancillary facilities, or temporary facilities or work areas, if any, where relocation would avoid or reduce damage to cultural resource values. Where operationally feasible, potentially NRHP-eligible resources shall be protected from direct project impacts by project redesign.

Where the BLM and CPUC decide that potentially NRHP-eligible cultural resources cannot be protected from direct impacts by project redesign, the Applicant shall undertake additional studies to evaluate the resources' NRHP-eligibility and to recommend further mitigative treatment. The nature and extent of this evaluation shall be determined by the BLM in consultation with the CPUC and the appropriate State Historic Preservation Officer (SHPO) and shall be based upon final project engineering specifications. Evaluations will be based on surface remains, subsurface testing, archival and ethnographic resources, and in the framework of the historic context and important research questions of the project area. Results of those evaluation studies and recommendations for mitigation of project effects shall be incorporated into a Historic Properties Treatment Plan consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan).

All potentially NRHP-eligible resources (as determined by the BLM and CPUC) that will not be affected by direct impacts, but are within 50 feet of direct impact areas will be designated as Environmentally Sensitive Areas (ESAs). Protective fencing, or other markers, at the BLM's

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discretion, shall be erected and maintained to protect ESAs from inadvertent trespass for the duration of construction in the vicinity. Construction personnel and equipment shall be instructed on how to avoid ESAs. ESAs shall not be identified specifically as cultural resources. A monitoring program shall be developed as part of the Historic Properties Treatment Plan and implemented by the Applicant to ensure the effectiveness of ESAs.

- C-1c** **Develop and implement Historic Properties Treatment Plan.** Upon approval of the inventory report and the National Register of Historic Places (NRHP)-eligibility evaluations by the BLM and CPUC, consistent with Mitigation Measures C-1a (Inventory and evaluate cultural resources in Final APE) and C-1b (Avoid and protect potentially significant resources), the Applicant shall prepare and submit for approval a Historic Properties Treatment Plan (HPTP) for NRHP-eligible cultural resources to mitigate or avoid identified impacts. Treatment of cultural resources shall follow the procedures established by the Advisory Council on Historic Preservation for compliance with Section 106 of the National Historic Preservation Act and other appropriate State and local regulations. Avoidance, recordation, and data recovery will be used as mitigation alternatives. The HPTP shall be submitted to the BLM and CPUC for review and approval.

As part of the HPTP, the Applicant shall prepare a research design and a scope of work for evaluation of cultural resources and for data recovery or additional treatment of NRHP-eligible sites that cannot be avoided. Data recovery on most resources would consist of sample excavation and/or surface artifact collection, and site documentation. A possible exception would be a site where burials, cremations, or sacred features are discovered that cannot be avoided.

The HPTP shall define and map all known NRHP-eligible properties in or within 50 feet of all project APEs and shall identify the cultural values that contribute to their NRHP-eligibility. A cultural resources protection plan shall be included that details how NRHP-eligible properties will be avoided and protected during construction. Measures shall include, at a minimum, designation and marking of Environmentally Sensitive Areas (ESAs), archaeological monitoring, personnel training, and effectiveness reporting. The plan shall detail: what measures will be used; how, when, and where they will be implemented; and how protective measures and enforcement will be coordinated with construction personnel.

The HPTP shall also define any additional areas that are considered to be of high-sensitivity for discovery of buried NRHP-eligible cultural resources, including burials, cremations, or sacred features. The HPTP shall detail provisions for monitoring construction in these high-sensitivity areas. It shall also detail procedures for halting construction, making appropriate notifications to agencies, officials, and Native Americans, and assessing NRHP-eligibility in the event that unknown cultural resources are discovered during construction. For all unanticipated cultural resource discoveries, the HPTP shall detail the methods, the consultation procedures, and the timelines for assessing NRHP-eligibility, formulating a mitigation plan, and implementing treatment. Mitigation and treatment plans for unanticipated discoveries shall be approved by the BLM and CPUC, appropriate local governments, appropriate Native Americans, and the appropriate State Historic Preservation Officer prior to implementation.

The HPTP shall include provisions for analysis of data in a regional context, reporting of results within one year of completion of field studies, curation of artifacts (except from private land)

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and data (maps, field notes, archival materials, recordings, reports, photographs, and analysts' data) at a facility that is approved by BLM, and dissemination of reports to local and State repositories, libraries, and interested professionals. The BLM will retain ownership of artifacts collected from BLM managed lands. The Applicant shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections. The HPTP shall specify that archaeologists and other discipline specialists conducting the studies meet the Secretary of the Interior's Standards (per 36 CFR 61).

C-1d Conduct data recovery to reduce adverse effects. If National Register of Historic Places (NRHP)-eligible resources, as determined by the BLM and SHPO, cannot be protected from direct impacts of the Proposed Project, data-recovery investigations shall be conducted by the Applicant to reduce adverse effects to the characteristics of each property that contribute to its NRHP-eligibility. For sites eligible under Criterion d, significant data would be recovered through excavation and analysis. For properties eligible under Criteria a, b, or c, data recovery may include historical documentation, photography, collection of oral histories, architectural or engineering documentation, preparation of a scholarly work, or some form of public awareness or interpretation. Data gathered during the evaluation phase studies and the research design element of the Historic Properties Treatment Plan (HPTP) shall guide plans and data thresholds for data recovery; treatment will be based on the resource's research potential beyond that realized during resource recordation and evaluation studies. If data recovery is necessary, sampling for data-recovery excavations will follow standard statistical sampling methods, but sampling will be confined, as much as possible, to the direct impact area. Data-recovery methods, sample sizes, and procedures shall be detailed in the HPTP consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan) and implemented by the Applicant only after approval by the BLM and CPUC. Following any field investigations required for data recovery, the Applicant shall document the field studies and findings, including an assessment of whether adequate data were recovered to reduce adverse project effects, in a brief field closure report. The field closure report shall be submitted to the BLM and CPUC for their review and approval, as well as to appropriate State repositories and local governments. Construction work within 100 feet of cultural resources that require data-recovery fieldwork shall not begin until authorized by the BLM or CPUC, as appropriate.

C-1e Monitor construction. The Applicant shall implement archaeological monitoring by a professional archaeologist during subsurface construction disturbance at all locations identified in the Historic Properties Treatment Plan (HPTP). Full-time monitoring shall occur when ground-disturbing activities take place at all archaeological High-Sensitivity Areas described above and at all cultural resource Environmentally Sensitive Areas (ESAs). These locations and their protection boundaries shall be defined and mapped in the HPTP. Intermittent monitoring may occur in areas of moderate archaeological sensitivity at the discretion of the BLM and CPUC. Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historical and prehistoric resources that could be encountered within the project, and under direct supervision of a principal archaeologist. The qualifications of the principal archaeologist and archaeological monitors shall be approved by the BLM and CPUC. A Native American monitor may be required at culturally sensitive locations specified by the BLM following government-to-government consultation with Native American tribes. The monitoring plan in the HPTP shall indicate the locations where Native American monitors will be required and shall specify the tribal affiliation of the required Native American monitor for each location. The Applicant shall retain and schedule any required Native American monitors.

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Compliance with and effectiveness of the cultural resources monitoring plan shall be documented by the Applicant in a monthly report to be submitted to the BLM and CPUC, and, on San Bernardino National Forest, to the USFS, and on Agua Caliente land to the THPO, for the duration of project construction. In the event that cultural resources are not properly protected by ESAs, all project work in the immediate vicinity shall be diverted by the archaeological monitor until authorization to resume work has been granted by the BLM and CPUC. The Applicant shall notify the BLM of any damage to cultural resource ESAs. The Applicant shall consult with the BLM and CPUC to mitigate damages and to increase effectiveness of ESAs. At the discretion of the BLM and CPUC, such mitigation may include, but not be limited to modification of protective measures, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection.

C-1f Train construction personnel. All construction personnel shall be trained regarding the recognition of possible buried cultural remains and protection of all cultural resources, including prehistoric and historic resources during construction, prior to the initiation of construction or ground-disturbing activities. The Applicant shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American burials. Training shall inform all construction personnel that Environmentally Sensitive Areas (ESAs) must be avoided and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of artifacts or other cultural materials on or off the right-of-way by the Applicant, his representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate State and federal laws and violations will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction:

- All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits, their responsibility to avoid and protect all cultural resources, and the penalties for collection, vandalism, or inadvertent destruction of cultural resources.
- The Applicant shall provide a background briefing for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential ESA, and procedures and notifications required in the event of discoveries by project personnel or archaeological monitors. Supervisors shall also be briefed on the consequences of intentional or inadvertent damage to cultural resources. Supervisory personnel shall enforce restrictions on collection or disturbance of artifacts or other cultural resources.
- Upon discovery of potential buried cultural materials by archaeologists or construction personnel, or damage to an ESA, work in the immediate area of the find shall be diverted and the Applicant's archaeologist notified. Once the find has been inspected and a preliminary assessment made, the Applicant's archaeologist will consult with the BLM or CPUC, as appropriate, to make the necessary plans for evaluation and treatment of the find(s) or mitigation of adverse effects to ESAs.

C-1g Minimize impacts at Harquahala Peak. SCE shall consult with BLM's Phoenix Area Office to define and implement the most effective actions to reduce impacts of the proposed

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telecommunications tower at Harquahala Peak on cultural, visual, and recreational resources. Options for consideration shall include the following:

- SCE shall work with BLM to evaluate and analyze different locations for the communications facility, and shall document each site as to its adequacy for SCE's needs. If a different site (or sites) appears to be feasible and acceptable to BLM, SCE shall complete biological and cultural resources surveys and provide reports to BLM.
- SCE shall design and finish the tower for the proposed new facility to emulate the existing facilities. In addition, the location of the proposed new tower shall be relocated to the place determined by BLM to minimize effects on the interpretive site.
- SCE shall provide visitor facilities or enhanced historic interpretive information in order to better convey to the public the scientific contributions that the Observatory has made to history, and which make it worthy of NRHP listing under Criterion a.
- SCE shall consult with CAP and BLM to develop a co-located communications facility requiring only one tower to serve both parties.
- Based on consultation with BLM, SCE shall relocate the laydown area to a site that minimizes effects on visitors to Harquahala Peak.

After consultation with BLM on the options defined above, SCE shall submit a revised description of the Harquahala Peak facilities and laydown area along with detailed construction plans for review and approval by BLM's Phoenix Area Office at least 60 days prior to the start of construction.

C-2a Consult agencies and Native Americans. If human remains are discovered during construction, all work will be diverted from the area of the discovery and the BLM authorized officer will be informed immediately. The Applicant shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains. The Applicant shall assist and support the BLM in all required government-to-government consultations with Native Americans and appropriate agencies and commissions, as requested by the BLM. The Applicant shall comply with and implement all required actions and studies that result from such consultations, as directed by the BLM.

C-3a Complete consultation with Native American and other Traditional Groups. The Applicant shall provide assistance to the BLM, as requested by the BLM, to complete required government-to-government consultation with interested Native American tribes and individuals (Executive Memorandum of April 29, 1994 and Section 106 of the National Historic Preservation Act) and other Traditional Groups to assess the impact of the Proposed Project on Traditional Cultural Properties or other resources of Native American concern. As directed by the BLM, the Applicant shall undertake required treatments, studies, or other actions that result from such consultation. Written documentation of the completion of all pre-construction actions shall be submitted by the Applicant and approved by the BLM at least 30 days before commencement of construction activities. Actions that are required during or after construction shall be defined, detailed, and scheduled in the Historic Properties Treatment Plan and implemented by the Applicant, consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan).

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- C-4a** **Inventory paleontological resources in Final APE.** Prior to construction and all other surface-disturbing activities, the Applicant shall have conducted and submitted for approval an inventory of potentially significant paleontological resources, based on field inspection of areas of high or undetermined paleontological sensitivity that will be affected by the project as determined by the BLM and CPUC. As part of the inventory report, the Applicant shall evaluate and refine the paleontological sensitivity modeling of sediments that will be affected.
- C-4b** **Develop Paleontological Monitoring and Treatment Plan.** The Applicant shall, upon approval of the paleontological inventory report by the BLM and CPUC, prepare and submit for approval a plan to mitigate identified impacts. The Paleontological Monitoring and Treatment Plan shall identify construction impact areas of high sensitivity for encountering significant resources and the depths at which those resources are likely to be discovered. The Plan shall outline a coordination strategy to ensure that all construction disturbance in high sensitivity sediments will be monitored full-time by qualified professionals. Sediments of undetermined sensitivity will be spot-checked. The Plan shall detail the significance criteria to be used to determine which resources will be avoided or recovered for their data potential. The Plan shall also detail methods of recovery, post-excavation preparation and analysis of specimens, final curation of specimens at a federally recognized, accredited facility, data analysis, and reporting. The Plan shall specify that all paleontological work undertaken by the Applicant on public land shall be carried out by qualified professionals on a currently valid Paleontological Collecting Permit for the appropriate State. Notices to proceed will be issued by the BLM and CPUC following approval of the Paleontological Monitoring and Treatment Plan.
- C-4c** **Monitor construction for paleontology.** Based on the paleontological sensitivity assessment and Monitoring and Treatment Plan consistent with Mitigation Measure C-4b (Develop Paleontological Monitoring and Treatment Plan), the Applicant shall conduct full-time construction monitoring in areas where and when sediments of high paleontological sensitivity will be disturbed. Construction activities shall be diverted when data recovery of significant fossils is warranted.
- C-4d** **Conduct paleontological data recovery.** If avoidance of significant paleontological resources is not feasible or appropriate, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the Applicant, in accordance with the approved Treatment Plan per Mitigation Measure C-4b (Develop Paleontological Monitoring and Treatment Plan).
- C-4e** **Train construction personnel.** All construction personnel shall be trained regarding the recognition of possible buried paleontological resources and protection of all paleontological resources during construction, prior to the initiation of construction or ground-disturbing activities. The Applicant shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological materials. Training shall inform all construction personnel that Environmentally Sensitive Areas (ESAs) must be avoided and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of federally protected fossils on or off the right-of-way by the Applicant, his representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate State and federal laws and will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the

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issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction:

- All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried paleontological deposits, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources.
- The Applicant shall provide a background briefing for supervisory construction personnel describing the potential for exposing paleontological resources, the location of any potential ESA, and procedures and notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils.
- Upon discovery of potential buried paleontological materials by paleontologists or construction personnel, work in the immediate area of the find shall be diverted and the Applicant's paleontologist notified. Once the find has been inspected and a preliminary assessment made, the Applicant's paleontologist will notify the BLM and CPUC and proceed with data recovery in accordance with the approved Treatment Plan consistent with Mitigation Measure C-4b (Develop Paleontological Monitoring and Treatment Plan).

C-5a Protect and monitor NRHP-eligible properties. The Applicant shall design and implement a long-term plan to protect National Register of Historic Places (NRHP)-eligible sites from direct impacts of project operation and maintenance and from indirect impacts, such as erosion that result from the presence of the project. The plan shall be developed in consultation with the BLM to design measures that will be effective against project maintenance impacts and project-related vehicular impacts. The plan shall also include protective measures for NRHP-eligible properties within the DPV corridor that will experience operational and access impacts as a result of the Proposed Project. The proposed measures may include restrictive fencing or gates, permanent access road closures, signage, stabilization of erosion, site capping, site patrols, and interpretive/educational programs, or other measures that will be effective for protecting NRHP-eligible properties. The plan shall be property specific and shall include provisions for monitoring and reporting its effectiveness and for addressing inadequacies or failures that result in damage to NRHP-eligible properties. The plan shall be submitted to the BLM and CPUC for review and approval at least 30 days prior to project operation.

Monitoring of selected sites shall be conducted annually by a professional archaeologist for a period of five years. Monitoring shall include inspection of all site loci and defined surface features, documented by photographs from fixed photomonitoring stations and written observations. A monitoring report shall be submitted to the BLM and CPUC within one month following the annual resource monitoring. The report shall indicate any properties that have been impacted by erosion or vehicle or maintenance impacts. For properties that have been impacted, the Applicant shall provide recommendations for mitigating impacts and for improving protective measures. After the fifth year of resource monitoring, the BLM or CPUC, as appropriate, will evaluate the effectiveness of the protective measures and the monitoring program. Based on that evaluation, the BLM or CPUC may require that the Applicant revise or refine the protective measures, or alter the monitoring protocol or schedule. If the BLM does not authorize alteration of the monitoring protocol or schedule, those shall remain in effect for the duration of project operation.

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If the annual monitoring program identifies adverse effects to National Register of Historic Places (NRHP)-eligible properties from operation or long-term presence of the project, or if, at any time, the Applicant, BLM or CPUC become aware of such adverse effects, the Applicant shall notify the BLM and CPUC immediately and implement mitigation for adverse changes, as directed by the BLM and CPUC. At the discretion of the BLM and CPUC, such mitigation may include, but not be limited to modification of protective measures, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection.

Noise

N-1a Implement best management practices for construction noise. SCE shall employ the following noise-suppression techniques to minimize the impact of temporary construction noise and avoid possible violations of local rules, standards, and ordinances:

- Construction noise shall be confined to daytime, weekday hours (e.g., 7:00 a.m. to 6:00 p.m.) or an alternative schedule established by the local jurisdiction;
- Construction equipment shall use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer;
- Construction traffic shall be routed away from residences and schools, where feasible;
- Unnecessary construction vehicle use and idling time shall be minimized to the extent feasible. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. A "common sense" approach to vehicle use shall be applied; if a vehicle is not required for use immediately or continuously for construction activities, its engine should be shut off. (Note: certain equipment, such as large diesel-powered vehicles, require extended idling for warm-up and repetitive construction tasks.)

Transportation & Traffic

T-7a Repair roadways damaged by construction activities. If roadways, sidewalks, medians, curbs, shoulders, or other such features are damaged by the project's construction activities, as determined by the CPUC Environmental Monitor or the affected public agency, SCE shall coordinate repairs with the affected public agencies and ensure that any such damage is repaired to the pre-construction condition within 60 days from the end of all construction within each affected county.

T-13a Coordinate helicopter operations with Kofa NWR personnel. SCE shall develop a plan defining coordination with Kofa NWR personnel to ensure that no conflicts occur between construction helicopter operations and NWR rescue helicopter operations. The plan shall be submitted to the Kofa NWR at least 60 days before the start of construction for review and approval.

T-14a Consult with Kofa NWR personnel. SCE shall provide adequate signage at both ends of the utility road segment and work with Kofa NWR law enforcement personnel to prohibit public use of the road. SCE shall consult with Kofa NWR law enforcement personnel at least 60

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days prior to the start of construction to develop appropriate measures to prevent inadvertent use of this road segment.

Public Health and Safety

P-1a Develop Hazardous Substance Control and Emergency Response Plan. A Hazardous Substance Control and Emergency Response Plan shall be prepared for the project, and a copy shall be kept on site (or in vehicles) during construction and maintenance of the project. SCE shall document compliance by submitting the plan to the CPUC or BLM or USFWS, as appropriate, for review and approval at least 60 days before the start of construction.

P-1b Conduct environmental training and monitoring program. An environmental training program shall be established to communicate environmental concerns and appropriate work practices, including spill prevention, emergency response measures, and proper Best Management Practice (BMP) implementation, to all field personnel prior to the start of construction. The training program shall emphasize site-specific physical conditions to improve hazard prevention (e.g., identification of potentially hazardous substances) and shall include a review of all site-specific plans, including but not limited to, the project's Storm Water Pollution Prevention Plan and the Hazardous Substances Control and Emergency Response Plan. SCE shall document compliance by (a) submitting to the CPUC or BLM or USFWS, as appropriate, for review and approval an outline of the proposed Environmental Training and Monitoring Program, and (b) maintaining for monitor review a list of names of all construction personnel who have completed the training program.

Best Management Practices, as identified in the project Storm Water Pollution Prevention Plan and the Hazardous Substances Control and Emergency Response Plan, shall be implemented during the construction of the project to minimize the risk of an accidental release and provide the necessary information for emergency response.

P-1c Ensure proper disposal of construction waste. All non-hazardous construction and demolition waste, including trash and litter, garbage, and other solid waste shall be disposed of properly. Petroleum products and other potentially hazardous materials shall be removed to a hazardous waste facility permitted or otherwise authorized to treat, store, or dispose of such materials.

P-1d Maintain emergency spill supplies and equipment. Hazardous material spill kits shall be maintained at all construction sites for small spills. This shall include oil-absorbent material, tarps, and storage drums to be used to contain and control any minor releases. Emergency spill supplies and equipment shall be kept adjacent to all work areas and staging areas, and shall be clearly marked. Detailed information for responding to accidental spills and for handling any resulting hazardous materials shall be provided in the project's Hazardous Substances Control and Emergency Response Plan.

P-2a Identify pesticide/herbicide contamination. Soil samples shall be collected in construction areas where the land has historically or is currently being farmed to identify the possibility of and to delineate the extent of pesticide and/or herbicide contamination. Excavated materials containing elevated levels of pesticide or herbicide will require special handling and disposal procedures. Standard dust suppression procedures (as defined in Mitigation Measure AQ-1a)

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shall be used in construction areas to reduce airborne emissions of these contaminants and reduce the risk of exposure to workers and the public. Regulatory agencies for the states of Arizona or California (as appropriate) and the appropriate county shall be contacted to provide oversight regarding the handling, treatment, and/or disposal options.

- P-3a Observe exposed soil for evidence of contamination.** During grading or excavation work, the construction contractor shall observe the exposed soil for visual evidence of contamination. If visual contamination indicators are observed during construction, the contractor shall stop work until the material is properly characterized and appropriate measures are taken to protect human health and the environment. The contractor shall comply with all local, State, and federal requirements for sampling and testing, and subsequent removal, transport, and disposal of hazardous materials. Additionally, in the event that evidence of contamination is observed, the contractor shall document the exact location of the contamination and shall immediately notify the CPUC or BLM, describing proposed actions. A weekly report listing encounters with contaminated soils and describing actions taken shall be submitted to the CPUC or BLM.
- P-4a Prepare Spill Prevention, Countermeasure, and Control Plans.** To minimize, avoid, and/or clean up unforeseen spill of hazardous materials during operation of the proposed facilities, SCE shall update or prepare, if necessary, the Spill Prevention, Countermeasure, and Control plan for each substation, series capacitors, and the switchyard. SCE shall document compliance by providing a copy of the Spill Prevention, Control, and Countermeasures plans to the CPUC or BLM or USFWS, as appropriate, for review and approval at least 60 days before the start of operation.
- PS-1a Limit the conductor surface electric gradient.** As part of the design and construction process for the Proposed Project, the Applicant shall limit the conductor surface electric gradient in accordance with the IEEE Radio Noise Design Guide.
- PS-1b Document and resolve electronic interference complaints.** After energizing the transmission line, SCE shall respond to and document all radio/television/equipment interference complaints received and the responsive action taken. These records shall be made available to the CPUC for review upon request. All unresolved disputes shall be referred by SCE to the CPUC for resolution.
- PS-1c Coordinate with Kofa NWR to prevent radio interference.** Prior to construction, SCE shall coordinate with Kofa National Wildlife Refuge to determine any additional design, planning, or shielding measures that are necessary to prevent radio interference within the Refuge.
- PS-2a Implement grounding measures.** As part of the siting and construction process for the Proposed Project, SCE shall identify objects (such as fences, metal buildings, and pipelines) within and near the right-of-way that have the potential for induced voltages and shall implement electrical grounding of metallic objects in accordance with SCE's standards. The identification of objects shall document the threshold electric field strength and metallic object size at which grounding becomes necessary.

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Air Quality

- AQ-1a Develop and Implement a Fugitive Dust Emission Control Plan.** SCE shall develop and implement a Fugitive Dust Emission Control Plan (FDECP) for construction work. Measures to be incorporated into the plan include, but are not limited to the APMs (A-1 and A-5 through A-7) and the following, which also incorporate and revise the requirements of APMs A-2 through A-4 to make them definitive and enforceable:
- CARB certified non-toxic soil binders shall be applied to all active unpaved roadways, unpaved staging areas, and unpaved parking area(s) throughout construction (as allowed by responsible agencies such as the BLM or USFWS) in amounts meeting manufacturer's recommendations to meet the CARB certification fugitive dust reduction efficiency of 84 percent.
 - Water the disturbed areas of the active construction sites, where CARB certified soil binders have not been applied, at least three times per day.
 - Enclose, cover, water three times daily, or apply non-toxic soil binders according to manufacturer's specifications to exposed piles with a five percent or greater silt content.
 - Install wheel washers/cleaners or wash the wheels of trucks and other heavy equipment where vehicles exit the site or unpaved access roads and sweep paved streets daily with water sweepers if visible soil material from the construction sites or unpaved access roads are carried onto adjacent public streets.
 - Establish a vegetative ground cover or allow natural revegetation to occur on temporarily disturbed areas following the completion of construction (in compliance with biological resources impact mitigation measures), or otherwise create stabilized surfaces on all unpaved areas at each of the construction sites within 21 days after active construction operations have ceased.
 - Increase the frequency of watering, or implement other additional fugitive dust mitigation measures, to all disturbed fugitive dust emission sources when wind speeds (as instantaneous wind gusts) exceed 25 miles per hour (mph).
 - Travel route planning will be completed to identify required travel routes to minimize unpaved road travel to each construction site to the extent feasible.
- AQ-1b Use ultra low-sulfur diesel fuel.** CARB-certified ultra low-sulfur diesel (ULSD) fuel containing 15 ppm sulfur or less shall be used in all diesel-powered construction equipment.
- AQ-1c Restrict engine idling.** Diesel engine idle time shall be restricted to no more than a 10 minutes duration.
- AQ-1d Use lower emitting offroad diesel-fueled equipment.** All offroad construction diesel engines not registered under CARB's Statewide Portable Equipment Registration Program, which have a rating of 50 hp or more, shall meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, section 2423(b)(1) unless that such engine is not available for a particular item of equipment. In the event a Tier 2 engine is not available for any offroad engine larger than 100 hp, that engine shall be equipped with a Tier 1 engine. In the event a Tier 1 engine is

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not available for any offroad engine larger than 100 hp, that engine shall be equipped with a catalyzed diesel particulate filter (soot filter), unless certified by engine manufacturers that the use of such devices is not practical for specific engine types. Equipment properly registered under and in compliance with CARB's Statewide Portable Equipment Registration Program are considered to comply with this mitigation measure.

- AQ-1e Use onroad vehicles that meet California onroad standards.** All onroad construction vehicles working within California shall meet all applicable California onroad emission standards and shall be licensed in the State of California. This does not apply to construction worker personal vehicles.
- AQ-1f Use lower emitting offroad gasoline-fueled equipment.** All offroad stationary and portable gasoline powered equipment shall have EPA Phase 1/Phase 2 compliant engines, where the specific engine requirement shall be based on the new engine standard in effect two years prior to the initiating project construction.
- AQ-1g Reduce helicopter use during construction.** Helicopter use in California shall be limited to that necessary for conductor installation, using helicopters of the smallest practical size; and helicopters shall not be used for delivering supplies or personnel within California federal or State ozone nonattainment areas except as specifically excepted by the CPUC due to limitations in road access and/or to reduce other adverse environmental impacts associated with road construction/travel (such as to biological resources or cultural resources).
- AQ-1h Schedule deliveries outside of peak hours.** For marshalling and construction yards west of the eastern border of the City of Indio, all material deliveries to the yards and from the yards to the construction sites shall be scheduled to occur outside of peak "rush hour" traffic hours (7:00 to 10:00 a.m. and 4:00 to 7:00 pm) to the extent feasible, and other truck trips during peak traffic hours shall be minimized to the extent feasible.
- AQ-1i Obtain NOx emission offsets.** SCE shall obtain NOx emission reduction credits or offsets in sufficient quantities to offset construction emissions of NOx that exceed the South Coast Air Basin ozone nonattainment area federal General Conformity Rule applicability threshold as determined in the General Conformity analysis for the project. The emission offset method shall comply with SCAQMD rules and regulations, and offsets shall be obtained by SCE prior to construction.

Hydrology and Water Resources

- H-6a Design diversion dikes or other site remediations to avoid damage to adjacent property.** Where diversion dikes are required to protect towers or other project structures from flooding or erosion, these dikes shall be designed to avoid increasing the risk of erosion or flooding onto adjacent areas where life or property could be threatened. Diversion dike designs shall be submitted to the CPUC and BLM for review and approval at least 60 days prior to construction.
- H-1a Restore disturbed soil with re-vegetation or construction of permanent erosion-control structures.** Soil disturbance at towers and access roads shall be the minimum necessary and designed to prevent long-term erosion through revegetation or construction of permanent erosion

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control structures according to plans to be reviewed and approved by the U.S. Forest Service. Copies of the final approved plans shall be submitted to the CPUC/BLM for their files.

Geology, Mineral Resources, and Soils

- G-1a** **Protect desert pavement.** Grading for new access roads or work areas in areas covered by desert pavement shall be avoided if possible. If avoidance of these areas is not possible, the desert pavement surface shall be protected from damage or disturbance from construction vehicles by use of temporary mats on the surface. A plan for identification and avoidance or protection of sensitive desert pavement shall be prepared and submitted to the CPUC, BLM, and USFWS for review and approval at least 60 days prior to start of construction.
- G-2a** **Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design.** Design-level geotechnical studies shall be performed by the Applicant to identify the presence, if any, of potentially detrimental soil chemicals, such as chlorides and sulfates. Appropriate design measures for protection of reinforcement, concrete, and metal-structural components against corrosion shall be utilized, such as use of corrosion-resistant materials and coatings, increased thickness of project components exposed to potentially corrosive conditions, and use of passive and/or active cathodic protection systems. The geotechnical studies shall also identify areas with potentially expansive or collapsible soils and include appropriate design features, including excavation of potentially expansive or collapsible soils during construction and replacement with engineered backfill, ground-treatment processes, and redirection of surface water and drainage away from expansive foundation soils. Study results and proposed solutions shall be provided to the CPUC and BLM, as appropriate, for review and approval at least 60 days before construction.
- G-3a** **Conduct geotechnical surveys for landslides.** The Applicant shall perform design-level geotechnical surveys in areas crossing and adjacent to hills and mountains. These surveys will acquire data that will allow identification of specific areas with the potential for unstable slopes, landslides, earth flows, and debris flows along the approved transmission line route and in other areas of ground disturbance, such as grading for access and spur roads. The investigations shall include an evaluation of subsurface conditions, identification of potential landslide hazards, and provide information for development of excavation plans and procedures. Where landslide hazard areas cannot be avoided, appropriate engineering design and construction measures shall be incorporated into the project designs to minimize potential for damage to project facilities. A report documenting these surveys and design measures to protect structures shall be submitted to the CPUC and BLM for review and approval at least 60 days before construction.
- G-5a** **Design project facilities to avoid impact from ground failure.** Since seismically induced ground failure has the potential to damage or destroy project components, the Applicant shall complete design-level geotechnical investigations at tower locations in areas with potential liquefaction-related impacts. These studies shall specifically assess the potential for liquefaction and lateral spreading hazards to affect the approved project and all associated facilities. Where these hazards are found to exist, appropriate engineering design and construction measures shall be incorporated into the project designs. A report documenting results of the geotechnical surveys shall be submitted to the CPUC and BLM for review and approval at least 60 days before construction.

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- G-6a** **Coordinate with quarry operations.** Operations and management personnel for the Indio Pit quarry shall be consulted regarding locations of active mining and for coordination of construction activities in and through those areas. A plan to avoid or minimize interference with mining operations shall be prepared in conjunction with mine/quarry operators prior to construction. SCE shall document compliance with this measure prior to the start of construction by submitting the plan to the CPUC and BLM for review at least 60 days prior to the start of construction.
- G-7a** **Minimize project structures within active fault zones.** SCE shall perform a geologic/geotechnical study to confirm the location of mapped traces of active and potentially faults crossed by the project route. For crossings of active faults, the towers shall be placed as far as feasible outside the area of mapped fault traces. Compliance with this measure shall be documented to the CPUC and BLM in a report submitted for review and approval at least 60 days prior to the start of construction.

Socioeconomics

- S-2a** **Recycle construction waste.** To comply with the Integrated Waste Management Act of 1989, during project construction SCE and/or its construction contractor shall recycle a minimum of 50 percent of the waste generated during construction activities. Prior to the start of construction, SCE shall provide the CPUC/BLM with a letter explaining how it will comply with this requirement.

Measures Applicable to the Devers-Valley No. 2 Alternative

- V-40b** **Reduce visual contrast of towers and conductors on San Bernardino National Forest land.** The following design measures are to be applied to all new structures and conductors on SBNF land based on SCE's consultation with SBNF staff prior to completion of final design. The details of these measures shall be developed:

In all areas:

- Transmission lines should have a permanent coloring of dark gray.
- All towers not back-dropped on mid-slope should have permanent coloring of cool mid-gray (battleship gray).

In mid-slope areas (as defined by SBNF):

- All towers and concrete bases on slopes which could serve as backdrops (mid-slope) should be painted olive drab.
- Tower pads should be left uneven without leveling.
- No construction roads shall be built.
- Towers shall be constructed by air support.

At ridge crossing and mid-slope (as defined by SBNF):

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- Towers should be constructed of lower profile to closer "hug" the top of the ridge to avoid tower silhouetting.
- Graphic studies from dominant view sites should be used to best place towers where they would be best back-dropped from expected viewing points.
- All towers and concrete bases on slopes which could serve as backdrops (mid-slope) should be painted olive drab.
- Tower pads should be left uneven without leveling.
- No construction roads shall be built.
- Towers should be constructed by air support.

V-40c **Reduce visual contrast of towers and conductors near the Pacific Crest Trail.** For towers located south of I-10 and outside of the SBNF, the following provisions apply:

- Where towers could be practicably back-dropped, utilize mitigation suggested for mid-slope and Ridge Crossing on SBNF lands (as defined in Mitigation Measure V-40b).
- The PCT shall not be crossed with construction roads.
- Locate towers so that the PCT is in the middle of the span (if this does not involve placement of extra or taller span towers to accomplish such action).

Measures Applicable to the Harquahala Junction Switchyard Alternative

V-6b **Screen ancillary facilities.** For the Harquahala Junction Switchyard Alternative, SCE shall provide a Screening Plan for screening vegetation, walls, and fences that reduces visibility and helps the facility blend in with the landscape. The use of berms to facilitate project screening may also be incorporated into the Plan. SCE shall submit the Plan to the BLM for review and approval at least 90 days prior to installing the landscape screening. If the BLM notifies SCE that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SCE shall prepare and submit for review and approval a revised Plan. The plan shall include but not necessarily be limited to:

- An 11"x17" color simulation of the proposed landscaping at 5 years
- A plan view to scale depicting the project and the location of screening elements
- A detailed list of any plants to be used; their size and age at planting; the expected time to maturity, and the expected height at five years and at maturity.

SCE shall complete installation of the screening prior to the start of project operation. SCE shall notify the BLM within seven days after completing installation of the screening, that the screening components are ready for inspection.

V-35a **Screen alternative switchyard site from Salome Highway views.** This measure is required to augment and not replace Mitigation Measure V-6b in order to provide more detailed direction pertaining to the planting of roadside screening vegetation along Salome Highway. Screening vegetation shall be planted along the east side of Salome Highway between mile markers 39 and 40. Vegetation shall be comprised of native species and shall be selected to achieve

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heights and screen effectiveness comparable to that shown in Figure D.3-30B (see enclosed CD). SCE shall submit a Screening Plan demonstrating compliance with this measure to the BLM for review and approval at least 90 days prior to installing the landscape screening. If the BLM notifies SCE that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SCE shall prepare and submit for review and approval a revised Plan. The Screening Plan shall include but not necessarily be limited to:

- An 11"x17" color simulation of the proposed landscaping at 5 years
- A plan view to scale depicting the project and the location of screening elements
- A detailed list of any plants to be used; their size and age at planting; the expected time to maturity, and the expected height at five years and at maturity

SCE shall complete installation of the screening prior to the start of project operation. SCE shall notify the CPUC within seven days after completing installation of the screening, that the screening components are ready for inspection.

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Applicant Proposed Measures

The following notes apply to the tables below.

- 1 APM refers to Applicant Proposed Measures. If there is a measure in the 1989 BLM ROW Grant that is not identified in the PEA as an APM, this FLM Grant measure is listed at the end of the table and is labeled BLM followed by its reference in the ROW Grant.
- 2 Refers to the Devers-Harquahala 500 kV transmission line.
- 3 Refers to the West of Devers 230 kV transmission line upgrade.
- 4 Reference in parentheses denotes the origin of the APM. "(SCE)" is a Proponent's mitigation measure. "(BLM)" is a Proponent's measure derived from a requirement in the BLM Right-of-Way Grant 1989. Numbers such as B-4.1 refer to the specific BLM measure in the 1989 Grant.
- 5 Holder is BLM's reference to the ROW Grant holder. Holder is SCE, the project proponent.

Applicant Proposed Measures – Biology

Measure Number and Description ¹	Applicable To	
	500 kV Transmission Line ²	230 kV Upgrade ³
APM B-1 Vegetation	Avoid direct disturbance of highly sensitive features (as identified in E. Linwood Smith's (1985) Impact Assessment/Mitigation Planning Chart; see Appendix E) with spanning and careful local adjustment in tower footing placement. (BLM B-5.1 Vegetation) [Note: The reference to Appendix E is unknown. There is no Appendix E as part of the BLM right-of-way grant (provided from PEA Appendix A). However, the Smith report itself is found in FSEIS (1988) as Appendix B, Study of Desert Bighorn Sheep.]	
APM B-2 Vegetation	Avoid the introduction of noxious weeds and/or other invasive species through standard noxious weed measures. This will benefit most of the species covered by the [Coachella Valley Multiple Species Habitat Conservation] plan. (SCE)	
APM B-3 Vegetation	Vehicular travel must be on established roads to the maximum extent practicable. Any off-road vehicle use should be strongly discouraged. This will benefit many of the species covered by the [Coachella Valley Multiple Species Habitat Conservation] plan. (SCE)	
APM B-4 Vegetation/ Wildlife	Avoid sand compaction at all sites in the Coachella Valley. This will benefit such species as the giant sand treader cricket, Coachella Valley Jerusalem cricket, and Coachella Valley milkvetch. (SCE)	

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Applicant Proposed Measures – Biology

Measure Number and Description ¹	Applicable To	
	500 kV Transmission Line ²	230 kV Upgrade ³
APM B-5 Vegetation/ Wildlife Copper Bottom Pass: <ul style="list-style-type: none"> • Maintenance of low speed limit on right of way ROW to protect desert animals and reduce dust • Continuous application of water to ROW roads to reduce dust • Requirement that stopped vehicles stop engines if stationary for a determined period of time • Requirement that operators of vehicles, if stopped for longer than a determined period of time, inspect under their vehicles to ensure that no animals have taken shelter from the sun; this requirement has been implemented before by requiring that vehicles with stopped engines have their keys placed under the vehicle thus forcing the operator to inspect • Flagging of all disturbed areas if needed to clarify drive-able or walk-able areas • Tight control of the Copper Bottom Pass area to ensure that only planned construction traffic is allowed in the area and that minimal trips are planned • Restricted use of the area to periods outside of any animal breeding seasons • Tight control on electrical workers for approved hours of access • Ensure that all workers accessing this area have completed environmental awareness training for biological and cultural sensitivities; all trained workers would be equipped with stickers for their hardhats to provide for easy-to-spot inspection • Removal of all construction debris from the area at the conclusion of the work 	✓	
APM B-6 Vegetation	Avoid vehicular travel in washes to protect triple-ridged milkvetch. (SCE)	✓
APM B-7 Vegetation/ Wildlife	No activities whatever should occur in wetland areas. (SCE)	✓
APM B-8 Vegetation	Provide additional detailed surveys and tower-specific adjustments as needed prior to construction for major sensitive feature sites (e.g., concentrations of sensitive plants, individual palm trees, woody dune or wash communities) which cannot be easily avoided by spanning. (See Appendix B of the Devers-Palo Verde No. 2 EIR [1987] and Appendix E of the SEIS [1988].) The methodologies and results of these surveys must be submitted to and approved in writing by the BLM Authorized Officer. (BLM B-5.2 Vegetation)	✓
APM B-9 Vegetation	Initiate transplant efforts for <i>Ferocactus</i> and <i>Coryphantha</i> as soon as probable losses can be determined. Any plans for transplanting must be developed in consultation with a BLM botanist and approved in writing by the BLM Authorized Officer. (BLM B-5.4 Vegetation)	✓
APM B-10 Vegetation	The right-of-way Holder ⁵ will have the Arizona State Department of Agriculture and Horticulture identify native plants that would otherwise be destroyed by construction and sell them to the Holder. (BLM B-5.5 Vegetation)	✓
APM B-11 Vegetation	The Authorized Officer may require vegetation in certain areas to be cleared by hand tools. Scalping of top soil and removal of low growing vegetation will not be allowed unless authorized by the Authorized Officer. (BLM B-5.6 Vegetation)	✓
APM B-12 Vegetation	Where possible, towers or access roads will be located so as to avoid sensitive plants or plant communities. Where this is not feasible, affected individual plants will be transplanted. Towers will also be placed so that lines will span critical wildlife habitat. (BLM B-5.7 Vegetation)	✓

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Applicant Proposed Measures – Biology

Measure Number and Description ¹	Applicable To	
	500 kV Transmission Line ²	230 kV Upgrade ³
APM B-13 Vegetation	Tower sites will be selected to allow maximum spacing of sensitive features. (BLM B-5.8 Vegetation)	✓
APM B-14 Vegetation	Minimize the area needed for equipment operation and material storage and assembly. (BLM B-5.3 Vegetation)	✓
APM B-15 Wildlife	In the vicinity of the Colorado River, existing tower spacings and conductor heights will be matched to the greatest extent practical. This would reduce the potential for bird collisions with the power line. (BLM B-5.1 Wildlife)	✓
APM B-16 Wildlife	Surveys – When access along the utility corridor already exists, pre-construction surveys for transmission lines should provide 100 percent coverage for any areas to be disturbed and within a 100-foot buffer around the areas of disturbance. When access along the utility corridor does not already exist, pre-construction surveys for transmission lines should follow standard protocol for linear projects. (SCE)	✓ ✓
APM B-17 Wildlife	Access – To the maximum extent possible, access for transmission line construction and maintenance should occur from public roads and designated routes. (SCE)	✓ ✓
APM B-18 Wildlife	Disturbed areas – To the maximum extent possible, transmission pylons and poles, equipment storage areas, and wire-pulling sites should be sited in a manner that avoids desert tortoise burrows. (SCE)	✓ ✓
APM B-19 Wildlife	Restoration – Whenever possible, spur roads and access roads and other disturbed sites created during construction should be recontoured and restored. (SCE)	✓ ✓
APM B-20 Wildlife	Ravens – All transmission lines should be designed in a manner that would reduce the likelihood of nesting by common ravens. Each transmission line company should remove any common raven nests that are found on its structures. Transmission line companies must obtain a permit from USFWS's Division of Migratory Birds to take common ravens or their nests. (SCE)	✓ ✓
APM B-21 Wildlife	No clearing of or other disturbance to riparian habitats. If unavoidable, riparian habitats must be replaced or restored. This action will benefit several riparian bird species including summer tanager, yellow warbler, yellow breasted chat, least Bell's vireo, and southwestern willow flycatcher. (SCE)	✓
APM B-22 Wildlife	Avoid impact to mesquite-dominated habitats to protect crissal thrasher. (SCE)	✓
APM B-23 Wildlife	Minimize impact to or removal of creosote bush to benefit LeConte's thrasher. (SCE)	✓
APM B-24 Wildlife	Avoid any alterations to the vegetation structure of Washington fan palm oases to benefit southern yellow bat. (SCE)	✓
APM B-25 Wildlife	Avoid any alterations of mesquite hummock habitat to benefit Coachella Valley round-tailed ground squirrel. (SCE)	✓
APM B-26 Wildlife	Wash communities along the entire route and sand dune communities in the Coachella Valley (see Map 10-AZ in the Draft SEIS and Figure 4.5-1 in the CPUC Draft EIR, 1987) will be spanned to the extent possible. (BLM B-5.2 Wildlife)	✓
APM B-27 Wildlife	Prior to construction activities, the Holder shall have a qualified tortoise biologist present a class or briefing to construction workers. Subjects addressed shall include tortoise sensitivity to human disturbance, daily and seasonal activity patterns, and proper handling for removal from roadways. (BLM B-5.4 Wildlife)	✓

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Applicant Proposed Measures – Biology

		Applicable To	
		500 kV Transmission Line ²	230 kV Upgrade ³
Measure Number and Description¹			
APM B-28 Wildlife	The Holder shall hire a qualified tortoise biologist to conduct daily inspections of roads and work areas within tortoise habitat during the tortoise season of activity (February 15 to June 15, July 15 to October 15). Tortoises found to be in jeopardy will be removed to a nearby site. Tortoises may be held for short periods, if judged necessary, to allow construction crews to pass through an area. The Holder will provide proper facilities for such temporary holding. (BLM B-5.6 Wildlife)	✓	
APM B-29 Wildlife	The Holder shall restrict the speed on all roads within tortoise habitat to a maximum of 25 miles per hour. The Holder is responsible for ensuring compliance with this limit by its employees. (BLM B-5.6 Wildlife)	✓	
APM B-30 Wildlife	Within tortoise habitat in California, spur roads shall not be bladed except where necessary to allow access for construction vehicles. Required vehicles shall enter on one pathway which is flagged and developed only by the passage of vehicles crushing vegetation. The spur shall be flagged by a qualified tortoise biologist prior to use. The spur shall avoid tortoise burrows and large perennial plants, yet be as short as possible within these requirements. Due to the presence of silty soils in Arizona, blading may occur. (BLM B-5.7 Wildlife)	✓	
APM B-31 Wildlife	Any desert tortoise observed on access roads or work areas will be moved immediately away from the roadway into safe areas. (BLM B-5.8 Wildlife)	✓	
APM B-32 Wildlife	In areas considered to comprise suitable tortoise habitat, or other areas where tortoise are observed, all access roads and tower construction sites will be surveyed by a qualified biologist to delineate burrows or individuals for protection. Burrows near construction sites will be clearly delineated on the ground. Road, footing, and work area alignments should be modified to the extent possible to avoid adversely affecting any tortoise burrows encountered during these surveys. Where tortoise burrows will be unavoidably destroyed, they should be excavated carefully using hand tools, under the supervision of a field biologist with demonstrated prior experience with this species. See Map 11-AZ in Appendix F in the Draft EIS (1988) and Figure 4.5-2 in the Devers-Palo Verde No. 2 EIR (1987). Also see Appendix E for link and milepost descriptions and mitigation measures. (BLM B-5.9 Wildlife)	✓	
APM B-33 Wildlife	If possible, no new roads, tower sitings, or spur roads will be built in blow sand areas. However, if new spur roads are required through wind-blown sand habitat, the road will be returned to natural conditions and effectively closed (gated or bermed) following construction. Pre-construction surveys will identify wind-blown sand dune habitats. (BLM B-5.10 Wildlife)	✓	

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Applicant Proposed Measures – Biology

Measure Number and Description ¹	Applicable To	
	500 kV Transmission Line ²	230 kV Upgrade ³
APM B-34 Wildlife	✓	
<p>Where the project crosses through the Coachella Valley Preserve, the Holder will cooperate with the Preserve in closing (gating) existing access roads. (a) A qualified biologist will also be present with work crews to survey and clear work areas daily for Coachella Valley fringe-toed lizard (CVFTL), flat-tailed horned lizard (FTHL), and other sensitive species in the Preserve and sand dune communities from Link 14 (Milepost 7.6) to Link 16 (Milepost 5.0) to identify if any additional areas of occupied CVFTL and FTHL habitat are present along the route or at construction staging areas. (b) This survey will be conducted during appropriate seasons (March 15 to May 15) and conditions for species identification. For any areas of suitable habitat, this measure will apply.</p> <p>In the Coachella Valley, compacted soils should be scarified and seeded with a mix of native plant seeds, including bugseed (<i>Dicoria canescens</i>), to promote revegetation of plant species valuable to the lizard.</p> <p>Construction activity and surface disturbance will be prohibited during the period from January 1 to March 31 for the protection of the bighorn sheep lambing areas. These areas along the proposed route include Link 2 (Milepost 29.0 to 34.0) and Link 6 (Milepost 0.0 to 6.0). (BLM B-5.11 Wildlife)</p>		
APM B-35 Wildlife	✓	
<p>Avoid upland areas where desert tortoises might occur and/or have a biologist present during construction activities that involve earth moving in order to move any tortoises (in burrows or cover-sites, or on the surface) that would likely be impacted. (BLM B-5.17 Wildlife)</p>		
APM B-36 Wildlife	✓	
<p>Avoid construction activities that would tend to create wind barriers that might result in sand stabilization in order to minimize impacts to populations of the Coachella Valley fringe-toed lizard. (BLM B-5.18 Wildlife)</p>		
APM B-37 Wildlife		✓
<p>Mitigation for the coastal California gnatcatcher should include protocol-driven pre-construction surveys. If gnatcatchers are found to be present, suitable habitat should be avoided, including relocating towers and access. If habitat cannot be avoided, SCE should either restore damaged habitat, as at the Weapons Support Facility, Fallbrook Detachment, San Diego County (Soil Ecology and Research Group, 2004), or participate in land set-aside programs such as the Natural Community Conservation Planning program (NCCP). Another potential mitigation action would be that of assisting in the provision of funding for monitoring programs that may be undertaken through the Western Riverside County Multiple Species Habitat Conservation Plan. (SCE)</p>		
APM B-38 Wildlife		✓
<p>For least Bell's vireo, suitable habitat would be completely avoided by relocating tower sites and/or associated access roads. There would be approximately 0.8 acres of suitable habitat potentially affected by the proposed west of Devers 230 kV upgrade; this small area should be entirely avoided. If avoidance is not possible and the habitat is damaged or lost, SCE should participate in habitat banking programs or provide funding through the Western Riverside County Multiple Species Habitat Conservation Plan for plan-related monitoring of this species. (SCE)</p>		
APM B-39 Wildlife		✓
<p>Stephens' kangaroo rat habitat would be avoided, where possible. (SCE)</p>		

Source: SCE, 2005.

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Applicant Proposed Measures – Cultural Resources

Measure Number and Description ¹	Applicable To	
	500 kV Transmission Line ²	230 kV Upgrade ³
APM C-1 Prior to construction and all other surface disturbing activities, the Holder ⁵ shall have conducted and submitted for approval by the Authorized Officer an inventory of cultural resources within the project's APE. The nature and extent of this inventory shall be determined by the Authorized Officer in consultation with the appropriate State Historic Preservation Officer (SHPO) and shall be based upon project engineering specifications. (BLM B-9.1) ⁴	✓	
APM C-2 As part of the inventory, the Holder shall conduct field surveys of sufficient nature and extent to identify cultural resources that would be affected by tower pad construction, access road installation, and transmission line construction and operation. At a minimum, field surveys shall be conducted along newly proposed access roads, new construction yards, and any other projected impact areas outside of the previously surveyed corridor. Site-specific field surveys also shall be undertaken at all projected areas of impact within the previously surveyed corridor that coincide with previously recorded cultural resource locations. The selected right-of-way shall be staked prior to the cultural resource field surveys. (BLM B-9.2)	✓	
APM C-3 As part of the inventory report, the Holder shall evaluate the significance of all affected cultural resources and provide recommendations with regard to their eligibility for the NRHP. Determinations of NRHP eligibility will be made by the Authorized Officer in consultation with the appropriate SHPO. (BLM B-9.3)	✓	
APM C-4 Upon approval of the inventory report by the Authorized Officer, the Holder shall prepare and submit for approval a cultural resource treatment plan for NRHP-eligible cultural resources to mitigate identified impacts. Avoidance, recordation, and data recovery will be used as mitigation alternatives. (BLM B-9.4)	✓	
APM C-5 The Authorized Officer may require the relocation of the line, ancillary facilities, or temporary facilities or work areas, if any, where relocation would avoid or reduce damage to cultural resource values. (BLM B-9.5)	✓	
APM C-6 If avoidance of specific cultural resources is not feasible, treatment shall be carried out as determined by the Authorized Officer in consultation with the appropriate SHPO. (BLM B-9.6)	✓	
APM C-7 When necessary to relocate the proposed line, ancillary facilities, temporary facilities, or work areas as a result of inventory, onsite avoidance decisions, or the Holder's approved request for relocation, the Holder shall inventory the proposed new locations for cultural resources and provide inventory results to the Authorized Officer prior to construction. Any mitigation deemed necessary by the Authorized Officer shall be completed prior to undertaking any surface disturbing activities. (BLM B-9.7)	✓	
APM C-8 All cultural resource work undertaken by the Holder on public lands shall be carried out by qualified professionals designated on a currently valid Cultural Resource Use Permit for the appropriate state. (BLM B-9.8)	✓	
APM C-9 Notices to proceed will be issued following completion, and approval by the Authorized Officer, of any fieldwork determined necessary through the inventory, evaluation, and consultation process described above. (BLM B-9.9)	✓	
APM C-10 Vehicles and equipment shall be confined and operated only within areas specified by the Authorized Officer. (BLM B-9.10)	✓	

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Applicant Proposed Measures – Cultural Resources

Measure Number and Description¹	Applicable To	
	500 kV Transmission Line²	230 kV Upgrade³
APM C-11 Unauthorized collection of artifacts or other cultural materials on or off the right-of-way by the Holder, his representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate State and federal laws. Unauthorized collection may constitute grounds for the issuance of a stop work order. (BLM B-9.11)	✓	

Source: SCE, 2005.

Applicant Proposed Measures – Paleontological Resources

Measure Number and Description¹	Applicable To	
	500 kV Transmission Line²	230 kV Upgrade³
APM P-1 Impacts to significant paleontological resources will be mitigated by conducting a pre-construction survey in areas of high or undetermined paleontological sensitivity to identify and collect surface specimens that could be affected by project construction. Paleontological monitoring of earth-disturbing construction activities and salvage of significant specimens will occur in project areas of high sensitivity. (SCE)		✓

Source: SCE, 2005.

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Applicant Proposed Measures – Air Quality

Measure Number and Description ¹	Applicable To	
	500 kV Transmission Line ²	230 kV Upgrade ³
APM A-1 Heavy duty off-road diesel engines would be properly tuned and maintained to manufacturers' specifications to ensure minimum emissions under normal operations. (SCE) ⁴	✓	✓
APM A-2 Water or chemical dust suppressants would be applied to unstabilized disturbed areas and/or unpaved roadways in sufficient quantity and frequency to maintain a stabilized surface. (SCE)	✓	✓
APM A-3 Water or water-based chemical additives would be used in such quantities to control dust on areas with extensive traffic including unpaved access roads; water, organic polymers, lignin compounds, or conifer resin compounds would be used depending on availability, cost, and soil type. (SCE)	✓	✓
APM A-4 Surfaces permanently disturbed by construction activities would be covered or treated with a dust suppressant after completion of activities at each site of disturbance. (SCE)	✓	✓
APM A-5 Vehicle speeds on unpaved roadways would be restricted to 15 miles per hour. (SCE)	✓	✓
APM A-6 Vehicles hauling dirt would be covered with tarps or by other means. (SCE)	✓	✓
APM A-7 Site construction workers would be staged offsite at or near paved intersections and workers would be shuttled in crew vehicles to construction sites. As part of the construction contract, SCE would require bidders to submit a construction transportation plan describing how workers would travel to the job site. (SCE)	✓	✓
APM A-8 Emissions credits would be purchased to offset any emissions levels which are over the emissions thresholds. (SCE)	✓	✓

Source: SCE, 2005.

Applicant Proposed Measures – Water Resources

Measure Number and Description ¹	Applicable To	
	500 kV Transmission Line ²	230 kV Upgrade ³
APM W-1 During the first year following construction, potential soil erosion sites will be inspected by the Holder ⁵ after each major rainstorm as access permits. For the purpose of this measure, a major rainstorm is defined as any singular storm where the total precipitation exceeds the arithmetic mean for similar events in the area and results in flooding. Examples include cloudbursts (high quantity – short duration) or storms where saturated soils produce runoff (high quantity – long duration). (BLM B-4.1) ⁴	✓	
APM W-2 Construction equipment will be kept out of flowing stream channels except when absolutely necessary to construct crossings. (BLM B-4.2)	✓	
APM W-3 Erosion control and hazardous material plans will be incorporated into the construction bidding specifications to ensure compliance. (BLM B-4.3)	✓	
APM W-4 Appropriate design of tower footing foundations, such as raised foundations and/or enclosing flood control dikes, will be used to prevent scour and/or inundation by a 100-year flood. (BLM B-4.4)	✓	
APM W-5 Towers will be located to the extent feasible to avoid active drainage channels, especially downstream of steep hillslope areas, to minimize the potential for damage by flash flooding and mud and debris flows. (BLM B-4.5)	✓	

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Applicant Proposed Measures – Water Resources

Measure Number and Description¹	Applicable To	
	500 kV Transmission Line²	230 kV Upgrade³
APM W-6 Diversion dikes or other structural enhancements will be required to divert runoff around a tower structure if (a) the location in an active channel cannot be avoided; and (b) where there is a very significant flood scour/deposition threat, unless specifically exempted by the BLM Authorized Officer. (BLM B-4.6)	✓	
APM W-7 Runoff from roadways will be collected and diverted from steep, disturbed, or otherwise unstable slopes. (BLM B-4.7)	✓	
APM W-8 Ditches and drainage concourses will be designed to handle the concentrated runoff, will be located to avoid disturbed areas, and will have energy dissipations at discharge points. (BLM B-4.8)	✓	
APM W-9 Cut and fill slopes will be minimized by a combination of benching and following natural topography where possible. (BLM B-4.9)	✓	
APM W-10 Construction equipment would be kept out of flowing stream channels except when absolutely necessary to construct crossings. (SCE)		✓
APM W-11 Erosion control and hazardous material plans would be incorporated into the construction bidding specifications to ensure compliance. (SCE)		✓
APM W-12 Appropriate design of tower footing foundations, such as raised foundations and/or enclosing flood control dikes, would be used to prevent scour and/or inundation by a 100-year flood. (SCE)		✓
APM W-13 Towers would be located to avoid active drainage channels, especially downstream of steep hillslope areas, to minimize the potential for damage by flash flooding and mud and debris flows. (SCE)		✓
APM W-14 Diversion dikes would be required to divert runoff around a tower structure if (a) the location in an active channel cannot be avoided, and (b) where there is a very significant flood scour/deposition threat. (SCE)		✓
APM W-15 Runoff from roadways would be collected and diverted from steep, disturbed, or otherwise unstable slopes. (SCE)		✓
APM W-16 Ditches and drainage concourses would be designed to handle the concentrated runoff, would be located to avoid disturbed areas, and would have energy dissipations at discharge points. (SCE)		✓
APM W-17 Cut and fill slopes would be minimized by a combination of benching and following natural topography where possible. (SCE)		✓

Source: SCE, 2005.

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Applicant Proposed Measures – Geology and Soils

Measure Number and Description ¹	Applicable To	
	500 kV Transmission Line ²	230 kV Upgrade ³
APM G-1 The line will be located to minimize the disruption of any active mining operations. (BLM B-2.1) ⁴	✓	
APM G-2 Individual transmission towers will not be sited on nor straddle the mapped traces of any known fault that has been designated active or potentially active. In areas where known faults are present, the Holder ⁵ will visually check the tower site area before clearing, and will check the tower footing holes for any trace of a previously unmapped fault. If manifestations of a fault are found, construction will immediately stop at that site and the Holder will consult with the Holder's Geologist and the BLM Authorized Officer. The Holder's Geologist and the BLM Authorized Officer will determine if it is a fault trace and if so, will ascertain if it is active, potentially active, or inactive. (BLM B-2.2)	✓	
APM G-3 Towers will be located so that the line will span the surface traces of active and potentially active faults such that a relative lateral surface displacement would shorten the span between towers, and thus avoid potential line breaks. Where this is not feasible, the Holder will incorporate slack spans to bridge the fault(s) such that the projected lateral surface displacement, as forecast by the Holder's Geologist and accepted by the BLM Authorized Officer, will not structurally affect the associated towers. (BLM B-2.3)	✓	
APM G-4 In general, an appropriate tower design which accounts for lateral wind loads and conductor loads exceeds any credible seismic loading (groundshaking). (BLM B-2.4)	✓	
APM G-5 Towers will be located to avoid areas of highly sensitive dune sand areas. Where these areas cannot be avoided, towers will be located to minimize disturbance to the deposits at a site approved by the BLM Authorized Officer. (BLM B-2.5. Note: Text here omits references to specific figures and maps in the original (1987-88) DEIR and DEIS.)	✓	
APM G-6 Wherever feasible to minimize the potential for slope instability, towers will be located to avoid gullies or active drainages, and over-steepened slopes. (BLM B-2.6)	✓	
APM G-7 SCE will provide a list of sites where helicopter construction is recommended. The Authorized Officer may require, on a site-specific basis, helicopter assisted construction in sensitive areas. Sensitive areas are those that exhibit both (1) high erosion potential and/or slope instability; and (2) a lack of existing stub roads within a reasonable distance of the tower site, or existing access that is not suitable for upgrading to accommodate conventional tower construction or line stringing equipment, and where it is determined that, after field review, the issues of erosion and/or slope instability cannot be successfully mitigated through implementation of accepted engineering practices. (BLM B-2.7)	✓	
APM G-8 Mitigation of potentially significant impacts to the western end of the proposed transmission line due to (1) potential surface fault rupture along the Banning, Mission Creek, and Mecca Hills faults, and (2) potential for severe seismic shaking can be achieved by standard design methods listed below: a. Individual towers will be sited so as not to straddle active fault traces. b. The alignment will be designed to cross an active fault such that future rupture on the fault would not cause excessive stress on the line or the towers. c. Standard foundation and structural design measures will be utilized to minimize the impact from severe seismic shaking. (BLM B-2.8)	✓	
APM G-9 Appropriate design of tower foundations will be used to reduce the potential for settlement and compaction. (BLM B-2.9)	✓	

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Applicant Proposed Measures – Geology and Soils

Measure Number and Description ¹	Applicable To	
	500 kV Transmission Line ²	230 kV Upgrade ³
APM G-10 New access roads and soil disturbance will be avoided or minimized in all areas designated as having high erosion hazards or potential slope instability. If the Authorized Officer, after consultation and review of alternatives (including helicopter or helicopter assisted construction), deems the proposed new access road feasible, design plans must be submitted for approval, in writing, prior to construction. (BLM B-3.1. Note: Text here omits references to specific figures and maps in the original (1987-88) DEIR and DEIS.)	✓	
APM G-11 New access roads, which are required, will be designed to minimize ground disturbance from grading. They will follow natural ground contours as closely as possible and include specific features for road drainage, including water bars on slopes over 25 percent. Other measures could include drainage dips, side ditches, slope drains, and velocity reducers. Where temporary crossings are constructed, the crossings will be restored and repaired as soon as possible after completion of the discrete action associated with construction of the line in the area. (BLM B-3.2)	✓	
APM G-12 Side casting of soil during grading will be minimized. Excess soil and excavated soil will be properly stabilized or, dispersed around tower construction sites or on stub or access roads. (BLM B-3.3)	✓	
APM G-13 During grading operations, care would be exercised to minimize side casting. No earth would be removed below final elevations, and no cuts would be made deeper than necessary for clearing and road construction. (SCE)	✓	✓
APM G-14 Upon completion of construction, any drainage deficiencies would be corrected to prevent future erosion. Trees and brush would be cleared only when necessary to provide electrical clearance, line reliability, or suitable access for maintenance and construction. (SCE)	✓	✓
APM G-15 Counterpoise may need to be installed if the local soil conditions indicate that the soil has a resistance above 30 ohms. This is accomplished by attaching a 0.375-inch cable to the tower steel. The cable is installed 1 foot underground and extends approximately 100 feet within the ROW from two or more footings.	✓	✓
APM G-16 The line would be located to minimize the disruption of any active mining operations. (SCE)		✓
APM G-17 Appropriate tower design would be used to mitigate the potential for impacts from very strong seismic groundshaking. In general, an appropriate tower design which accounts for lateral wind loads and conductor loads during line stringing exceeds any credible seismic loading (groundshaking). (SCE)		✓
APM G-18 Whenever possible to minimize the potential for slope instability, towers would be located to avoid gullies or active drainages, and over-steepened slopes. (SCE)		✓
APM G-19 New access roads, where required, would be designed to minimize ground disturbance from grading. They would follow natural ground contours as closely as possible and include specific features for road drainage, including water bars on slopes over 25 percent. Other measures could include drainage dips, side ditches, slope drains, and velocity reducers. Where temporary crossings are constructed, the crossings would be restored and repaired as soon as possible after completion of the discrete action associated with construction of the line. Side casting of soil during grading would be minimized. Excess soil would be properly stabilized, or if necessary, hauled to an approved disposal site. (SCE)		✓

Source: SCE, 2005.

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Applicant Proposed Measures – Visual Resources

Measure Number and Description ¹	Applicable To	
	500 kV Transmission Line ²	230 kV Upgrade ³
APM V-1 Non-specular conductors will be used [to reduce glare and visual contrast]. (BLM B-6.1) ⁴ [bracketed text added by SCE]	✓	✓
APM V-2 For the proposed alignment, tower spacing will correspond to the spacing of the existing transmission line structures. Additionally, new tower heights will be adjusted such that the top elevations of each set of towers (new and existing) are horizontal with each other. This will coordinate perceptions of towers and conductors as one element. Site-specific conditions will determine when such mitigation is feasible. Other exceptions to these two measures are where towers will be sited to avoid sensitive features and/or to allow conductors to clearly span features. (BLM B-6.2) [PEA adds: "SCE will comply with the above mitigation measure to the extent possible. However, the ISO has specified that the capacity of the line be 2700 amps under normal conditions and 3600 amps under emergency conditions. This capacity rating is an increase from the 1988 DPV2 capacity rating. This capacity rating necessitates that the heights of some of the proposed Devers-Harquahala towers be slightly taller than [adjacent towers], and in some locations tower spacing may not correspond to the adjacent DPV1 structures, to provide adequate ground clearance." (PEA, p. 6-31)]	✓	
APM V-3 At all highway and recreation routes-of-travel crossings, including the Colorado River, towers will be placed at the maximum feasible distance, and when feasible, [except in locations where matching existing tower spacing is deemed appropriate]. (BLM B-6.3) [From "and where feasible," the BLM text reads "...at right angles, from the crossing." SCE has replaced this phrase in the bracketed text.]	✓	
APM V-4 Improvements to existing access and new access will be accomplished according to Mitigation Measures 1 and 2 as identified under soils. (BLM B-6.4)	✓	
APM V-5 Standard tower spacing would be modified to correspond with spacing of existing transmission line towers where feasible and within limits of standard tower design to reduce visual contrast. (BLM B-6.8a)	✓	
APM V-6 Towers would be placed so as to avoid features and/or to allow conductors to clearly span the feature (within limits of standard tower design) to minimize the amount of sensitive feature disturbed and/or reduce visual contrast (e.g., avoiding skyline situations through placement of tower to one side of a ridge or adjusting tower location to avoid highly visible locations and utilize screening of nearby land-forms). (BLM B-6.8b)	✓	
APM V-7 The proposed steel lattice towers would be constructed using a dulled galvanized steel finish, which would result in visual contrast reduction. (SCE)		✓
APM V-8 Non-specular conductors would be used to reduce glare and resulting visual contrast. (SCE)		✓
APM V-9 Towers would be located adjacent to existing structures where feasible. Exceptions are at locations where the tower heights and/or spans would be modified based on terrain features allowing for adequate conductor clearance to ground and other facilities within the right-of-way. (SCE)		✓
APM V-10 At all highway and recreation routes-of-travel crossings, including the I-10 crossing, towers would be placed at the maximum feasible distance, except in locations where matching existing tower spacing is deemed appropriate, and when feasible, at 90 degree angles from the crossing. (SCE)		✓

Source: SCE, 2005.

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Applicant Proposed Measures – Land Use

Measure Number and Description ¹	Applicable To	
	500 kV Transmission Line ²	230 kV Upgrade ³
APM L-1	Impacts in crossing of the KOFA NWR (Link 2) would be minimized through utilization of existing utility access (gas and transmission) roads during the construction and operational phases of the project. All vehicular traffic would be limited to approved access or spur roads. (SCE) ⁴	✓
APM L-2	Although the Holder ⁵ may restore and maintain existing access roads, they cannot be either widened or upgraded without approval of the Authorized Officer. (BLM B-1.1)	✓
APM L-3	New access road construction will be kept to a minimum. (BLM B-1.2)	✓
APM L-4	Where feasible, the following additional mitigation measures would be implemented: <ul style="list-style-type: none"> • Matching of tower spans • Aligning towers adjacent to or parallel to agricultural field boundaries • Using tubular steel pole structures in agricultural fields instead of lattice steel towers to reduce the footprint of the structure • Specific tower placement to avoid span-sensitive features. (SCE) 	✓
APM L-5	Along Link 10 in the Palo Verde Valley, H-frame structures, similar to the existing DPV1 structures, would be installed in this segment to reduce the amount of farmland permanently removed from production and minimize impacts to farm operations. Where feasible, additional mitigation measures would include matching tower spans, and aligning towers adjacent or parallel to field boundaries. (SCE)	✓
APM L-6	In the agricultural area of the Palo Verde Valley, towers would be located to allow for canal dredging by the Palo Verde Irrigation District. This also could include canal modifications. (SCE)	✓
APM L-7	Link 10 crosses an (unoccupied) single-family dwelling unit at Milepost 5.3. Two additional single-family dwelling units and one mobile home would be impacted due to the alignment of Link 10 at Milepost 6.2. Mitigation measures would include purchase of the parcel and relocation or, if practical, adjusting the transmission line alignment and placing towers to avoid the affected dwelling units. (SCE)	✓
APM L-8	Link 14 crosses an open pit gravel operation. Potential impacts would be mitigated during construction by coordinating with the owner/operator to avoid critical mining periods and high volume earth-moving days. Operational mitigation would include spanning the mine. (SCE)	✓
APM L-9	Link 100 crosses the Pacific Crest National Trail, causing a potential temporary impact during construction. Temporary impacts also may occur where Link 102 crosses Noble Creek Regional Park and the Oak Valley Golf Course. Mitigation for construction includes avoiding high use periods and holidays. Mitigation for operation would require construction using structures placed parallel to existing structures to span and avoid displacement of recreational facilities. (SCE)	✓

Source: SCE, 2005.

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Applicant Proposed Measures – Noise

Measure Number and Description¹	Applicable To	
	500 kV Transmission Line²	230 kV Upgrade³
APM N-1 The proposed construction would comply with local noise ordinances. There may be a need to work outside of the aforementioned local ordinances in order to take advantage of low electrical draw periods during the nighttime hours. SCE would comply with variance procedures requested by local authorities if required. (SCE) ⁴	✓	✓

Source: SCE, 2005.

(END OF ATTACHMENT A)

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CEQA Findings of Fact

Regarding the Final Environmental Impact Report/Environmental Impact Statement for the
Devers-Palo Verde No. 2 Transmission Line Project
State Clearinghouse No. 2005101104
EIS No. CA-660-06-32

I. Revisions to the Final EIR/EIS

The second paragraph in Section 1.1.4 in the Executive Summary of the Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) is hereby replaced with the following language:

No local discretionary (e.g., use) permits are required, since the CPUC has preemptive jurisdiction over the construction, maintenance, and operation of SCE facilities in California. SCE would still have to obtain all ministerial building and encroachment permits from local jurisdictions, and the CPUC's General Order 131-D requires that, in locating electric facilities such as DPV2, SCE consult with local agencies regarding land use matters. The CPUC's authority does not preempt special districts, such as the South Coast Air Quality Management District, or other State agencies or the federal government.

Section H.1.3 of the Final EIR/EIS is hereby deleted:

H.1.3 Non-Federal Land in Arizona

Non-federal land in Arizona is not under the jurisdiction of the CPUC or the BLM and therefore, mitigation measures may not be enforceable in these areas of the project. Mitigation measures for these areas are recommended in this EIR/EIS, in order that Arizona agencies with jurisdiction over the DPV2 project (e.g., the Arizona Corporations Commission (ACC), Arizona counties for road or highway encroachment) may consider requiring implementation of these measures in order to reduce the impacts of the project in Arizona. The CPUC and BLM will not monitor implementation of mitigation measures on non-federal lands in Arizona unless specifically invited by these Arizona agencies. If and when the ACC approves the DPV2 project, the ACC could adopt the mitigation measures recommended in this EIR/EIS and/or it could add new measures of its own.

Mitigation measure B-16a in the Final EIR/EIS is modified to read as follows:

B-16a Prepare and implement a raven control plan. SCE shall prepare a common raven control plan that identifies the purpose of conducting raven control, provides training in how to identify raven nests and how to determine whether a nest belongs to a raven or a raptor species, describes the seasonal limitations on disturbing nesting raptors species (excluding ravens), describes the procedure for obtaining a permit from the USFWS's Division of Migratory Birds, and describes procedures for documenting the activities on an annual basis. SCE shall gain approval of the plan from the USFWS's

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Division of Migratory Birds. SCE shall provide this raven control plan to all transmission line companies that conduct operations within the ROW.

II. Certification

The California Public Utilities Commission (CPUC or Commission) hereby certifies the Devers-Palo Verde No. 2 Transmission Line Project (Project) Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS), State Clearinghouse No. 2005101104. In accordance with CEQA Guidelines §15090, the CPUC, as California Lead Agency for the Project, certifies that

- (1) The Final EIR/EIS has been completed in compliance with the California Environmental Quality Act (CEQA);
- (2) The Final EIR/EIS was presented to the Commission, and the Commission has received, reviewed, and considered the information contained in the Final EIR/EIS and hearing documents prior to approving the project;
- (3) The Final EIR/EIS reflects the CPUC's independent judgment and analysis.

The CPUC has exercised independent judgment in accordance with Public Resources Code, Section 21082.1(c) in retaining its own environmental consultant directing the consultant in preparation of the EIR/EIS as well as reviewing, analyzing, and revising material prepared by the consultant.

In accordance with Public Resources Code §21081 and CEQA Guidelines §15091, the Commission has made one or more specific written findings regarding significant impacts associated with the Project. Those findings are presented below, along with a presentation of facts in support of the findings. Concurrent with the adoption of these findings, the Commission adopts the Mitigation Monitoring Program as presented in the Final EIR/EIS (provided as Section X at the end of Attachment B).

The documents and other materials that constitute the record of proceedings on which the Project findings are based are located at the California Public Utilities Commission, 505 Van Ness Avenue, San Francisco, CA 94102. The custodian for these documents is the Energy Division, CEQA Unit. This information is provided in compliance with Public Resources Code §21081.6(a)(2) and 14 California Code of Regulations §15091(e).

III. Project Background

III.1 Project Description Summary

Southern California Edison (SCE) filed an application (Application Number A.05 04 015) for a Certificate of Public Convenience and Necessity (CPCN) with the California Public Utilities Commission (CPUC) on April 11, 2005 for the Devers-Palo Verde 500 kV No. 2 (DPV2) Transmission Line Project (Project). The DPV2 Project as proposed by SCE in its Application to the CPUC originally included a new 230-mile 500 kV line from the Harquahala Substation (in Arizona, near the Palo Verde nuclear power plant) to SCE's Devers Substation (in North Palm Springs, California).

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Depending on the outcome of contract negotiations, the Arizona portion of the Project will consist of approximately 102 miles of 500 kV transmission line from either the Harquahala Generating Station switchyard (located near Wintersburg and approximately 11 miles west-southwest of Tonopah, Maricopa County) or from the Harquahala Junction, 5 miles to the east, to the Colorado River. Based on the EIR/EIS analysis, the CPUC finds that the Harquahala Junction Switchyard Alternative is environmentally superior. A new switching station will be constructed east of the Harquahala Generating Station, at the point where the existing Harquahala-Hassayampa and DPV1 transmission lines diverge (a location called "Harquahala Junction"), which will be the eastern termination point of the Project. This switchyard will avoid the need to construct the 5-mile segment of the Project from Harquahala Junction to the Harquahala Generating Station Switchyard. The Harquahala Junction Switchyard will be built on a site of between 6 and 40 acres in the southwest quarter of Section 25, Township 2 North, Range 8 West, near the intersection of 451st Avenue and the Thomas Road alignment in unincorporated Maricopa County, Arizona. The CPUC finds that the Harquahala Junction Switchyard will meet project objectives, will be feasible, and will indefinitely postpone the need for almost 20 total miles of new 500 kV transmission line segments (5 miles of the Project from Harquahala Junction to the Harquahala Generating Station Switchyard will be eliminated and 14.7 miles of the TS-5 Project 500 kV line between Harquahala Junction and the PVNGS or Duke Arlington Power Plant could be indefinitely postponed). Overall, the use of the Harquahala Junction Switchyard will lessen impacts to wildlife and habitat, vegetation, noxious weeds, and agriculture in comparison to the portion of the Project route proposed by SCE.

The 500 kV DPV2 transmission line will follow the existing SCE 500 kV transmission line, Devers-Palo Verde No. 1 (DPV1) from the Harquahala Junction Switchyard to east of Alligator Rock. As a result of the EIR/EIS analysis, the Alligator Rock-North of Desert Center route was found to be environmentally preferable to the Project route proposed by SCE in the same area due to the biological, cultural, and recreational resources impacts it will avoid. This route and the portion of the Project it will replace are almost entirely on BLM lands. Approximately 5 miles east of Desert Center (between MPs 149 and 150), the Alligator Rock-North of Desert Center route will diverge from the Project route and will head northwest for approximately 1.5 miles before crossing Interstate 10 (I-10) to the north and continuing for 1.1 miles to an unnamed east-west dirt road along the section line. The route will then turn to the west and will parallel the roadway for approximately 1.4 miles before turning again to the northwest for 0.6 miles. The route will then turn west along another east-west section line, staying just within BLM land (north of private land at Desert Center) for another 0.6 miles before heading southwest for 1.5 miles to Ragsdale Road. The route will parallel Ragsdale Road and I-10 to the north for 3.6 miles before crossing back to the south of Ragsdale Road and I-10 to rejoining SCE's proposed route 1.5 miles later. The 11.8-mile route will be entirely on BLM land. The Project for this segment will be 10.6 miles long. The CPUC finds the Alligator Rock-North of Desert Center route to be environmentally superior to the Project portion it will replace. However, because most of the Alligator Rock-North of Desert Center route is on BLM lands, the ultimate authorization and approval of its route will be the responsibility of the BLM. In the event, that the BLM does not authorize the Alligator Rock-North of Desert Center route, the original Project route between approximately MP 149 and 160 will be approved and implemented.

The Project route from west of Alligator Rock to Devers Substation will remain as proposed by SCE in its Application to the CPUC. However, a different location for the Proposed SCE Midpoint Substation is available based on the Desert Southwest Transmission Line Project (DSWTP) that was reviewed and approved by the BLM and Imperial Irrigation District (IID). The DSWTP Final EIR/EIS considered a different location for the Midpoint Substation (herein called the Midpoint-DSW Substation) at the eastern intersection of the DSWTP line with the existing DPV1 line, which will be located approximately 5 miles

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northwest of SCE's proposed Midpoint Substation location for the DPV2 Project. In a comment on the DPV2 Draft EIR/EIS, the DSWTP proponents asked that the CPUC and BLM consider designation of the Midpoint-DSW substation location as an acceptable location for SCE to interconnect with the Desert Southwest transmission line from the Blythe power plants. The Midpoint-DSW Substation was fully analyzed in the DPV2 EIR/EIS as a component of the DSWTP Alternatives analysis, and was found to have equal environmental impacts when compared to the Midpoint Substation location identified by SCE. Both sites are on BLM land, and no significant environmental impacts will result from construction of a substation at either site. The CPUC finds that the Midpoint-DSW Substation location will meet project objectives and will be feasible. Overall, the impacts will be very similar to those of the proposed DPV2 Project Midpoint Substation. Because the Midpoint-DSW Substation location is entirely on BLM lands, its ultimate authorization and approval will be the responsibility of the BLM. In the event, that the BLM does not authorize this substation location as part of DSWTP, SCE's Midpoint Substation location will be approved and implemented. See Section V of this Attachment (Alternatives to the Project) for the findings for the entire DSWTP Alternative.

At the time of SCE's Application to the CPUC for the DPV2 project, the Project included upgrades to an additional 50 miles of 230 kV transmission lines west of the Devers Substation, called the "West of Devers" portion of the Project. However, the CPUC has determined that the West of Devers portion of the proposed Project is legally infeasible as a result of the segment which would cross over Morongo tribal lands and will implement the Devers-Valley No. 2 Alternative (analyzed in the EIR/EIS) instead of the West of Devers upgrades. Therefore, the impacts of all West of Devers upgrades will be eliminated. The CPUC finds that the implementation of the Devers-Valley No. 2 Alternative will meet the project objectives and is feasible. The Devers-Valley No. 2 (D-V Alternative) route will be a new 41.6-mile 500 kV line following the existing SCE Devers-Valley No. 1 500 kV transmission line corridor, with each new tower being located about 130 feet south of the existing D-V towers, where feasible. The route will traverse a small portion of the San Bernardino National Forest (SBNF) and the Santa Rosa and San Jacinto Mountains National Monument (National Monument). It will cross the Pacific Crest National Scenic Trail (PCT). The USDA Forest Service will need to determine whether the D-V route will be consistent with management direction in the governing Forest Land Management Plan. Based on this determination, the route could require amendments to the SBNF Land Management Plan, the National Monument Proposed Management Plan, and an existing MOU between BLM, Forest Service, and the Pacific Crest Trail Association (PCTA). While a portion of the corridor is within a designated wilderness area, the SCE transmission corridor was specifically excluded from wilderness by Congress. The findings presented in this document reflect this amendment to the proposed Project.

The Project will traverse federal BLM land in both California and Arizona, as well as private land and lands under various other jurisdictions. Although the Project will be located primarily within SCE's existing easement for the existing DPV1 transmission line, there may be some areas where additional ROW will need to be acquired. Therefore, SCE has also applied for a Right-of-Way Grant Permit from BLM to implement the project and comply with the National Environmental Policy Act (NEPA). In addition, because approximately 102 miles of the SCE proposed alignment will traverse lands in Arizona (the majority of which will be on BLM lands or under federal jurisdiction), pursuant to Arizona Revised Statute 40 360 et seq., the Arizona Corporation Commission (ACC) must issue a Certificate of Environmental Compatibility (CEC) to SCE based on environmental review and an analysis of purpose and need in order for SCE to construct a transmission line. For this process, SCE filed an application for a CEC with the ACC in early May 2006.

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III.2 Project Objectives/Purpose and Need

SCE's stated objectives for the Project are fourfold:

- **Increase California's Transmission Import Capability.** DPV2 will increase California's transmission import capability by 1,200 MW providing greater access to sources of low-cost energy currently operating in the Southwest.
- **Enhance the Competitive Energy Market.** DPV2 is expected to enhance competition amongst energy suppliers by increasing access to the California energy market, providing siting incentives for future energy suppliers, and providing additional import capability.
- **Support the Energy Market in the Southwest.** DPV2 will expand the Western Electricity Coordinating Council (WECC) interstate regional transmission network and will increase the ability for California and the Southwest to pool resources, and provide emergency support in the event of generating unit outages or natural disasters.
- **Provide Increased Reliability, Insurance Value, and Operating Flexibility.** DPV2 will improve the reliability of the regional transmission system, providing insurance against major outages such as the loss of a major generating facility or of another high-voltage transmission line.

IV. Environmental Review Process and the EIR/EIS

A joint Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) was published in May 2006 by the CPUC and BLM in compliance with CEQA and NEPA requirements. The Final EIR/EIS on the Project was published in October 2006. The Final EIR/EIS has been prepared for the CPUC in accordance with CEQA (Public Resources Code §21000 et seq.) and the CEQA Guidelines (14 California Code of Regulations [CCR], §15000 et seq.), as amended. As allowed for in §15084(d)(2) of the CEQA Guidelines, the CPUC retained a consultant to assist with the preparation of the environmental documents. The CPUC, acting as State Lead Agency, has reviewed and edited as necessary the submitted drafts to reflect its own independent judgment. The key milestones associated with the preparation of the EIR/EIS are summarized below. In addition, an extensive public involvement and agency notification effort was conducted to solicit input on the scope and content of the EIR/EIS and to solicit comment on the results of the environmental analysis presented in the Draft EIR/EIS. In general, the preparation of the EIR/EIS included the following key steps and public notification efforts:

- **Notice of Preparation.** Thirty-day scoping process began with the CPUC's issuance of the Notice of Preparation (NOP) of an EIR on October 25, 2005 and the BLM's publication of the Notice of Intent (NOI) to prepare an EIS in the Federal Register on December 7, 2005 (Volume 70, Number 234, pages 72845-72846).
- The NOP was filed with the State Clearinghouse on October 25, 2005. The NOP and a separate notice of the eight public scoping meetings was mailed to over 4,500 property owners, regulatory agencies; environmental groups; private organizations; tribal government representatives; and elected officials. Copies of the NOP were available at 26 local libraries and agency offices.
- The CPUC and BLM attended six consultation meetings with agencies and local jurisdictions to discuss the Project and hear any comments or concerns.

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- **Scoping Report.** In December 2005, a comprehensive Scoping Report was issued and 106 copies of the Scoping Report were distributed to agencies, parties on the CPUC's Service List, and individuals who requested copies. In February and March 2006, an Addendum to the Scoping Report was issued and 141 copies of the Addendum were distributed to agencies, parties on the CPUC's Service List, and individuals who requested copies. The Scoping Report and Addendum were also available for review at 26 repositories and on the Internet.
- **Draft EIR/EIS.** The CPUC issued the Draft EIR/EIS on May 4, 2006. Copies of the full Draft EIR/EIS and Appendices were sent to 170 interested parties and agencies, and to the 26 document repositories. One hundred and sixty-two (162) copies of the Executive Summary and 79 CDs with the text of the Draft EIR/EIS were also sent out. Additional copies of the Executive Summary and of the CDs with the text of the Draft EIR/EIS were distributed at the EIR/EIS Informational Workshops in June and July 2006.
- **Notice of Completion.** The Notice of Completion for the Draft EIR/EIS was filed with the State Clearinghouse on May 4, 2006.
- **Notice of Availability.** A Notice of Availability (NOA) of the Draft EIR/EIS was mailed to over 4,347 interested parties, agencies, county and city departments, special districts, property owners, and occupants on or adjacent to SCE's Proposed Project route in May 2006. A second NOA was mailed to 5,191 people to correct a mailing error, to announce that the Devers-Valley No. 2 Alternative had become SCE's preferred route, and to announce an additional public meeting in July 2006.
- **Public Meetings.** Six Informational Workshops and three Public Participation Hearings were held in June and July 2006. Forty-three (43) members of the public, including representatives of organizations and government agencies were documented in attendance at the CPUC Informational Workshops and Public Participation Hearings for the Draft EIR/EIS.
- **Project Resources.** The EIR/EIS e-mail address, telephone hotline, and a Project-specific Internet site was available to provide another avenue for public comment and inquiry. All meetings and document publications were also advertised in 10 local and regional newspapers in California and Arizona.

V. Environmental Impacts and Findings

Public Resources Code Section 21081 states that no public agency shall approve or carry out a project for which an EIR has been completed which identifies one or more significant effects on the environment unless the public agency makes one or more of the following findings:

1. Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment.
2. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.
3. Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

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Pursuant to Public Resources Code §21081 and CEQA Guidelines §15091, the Commission has made one or more of these specific written findings regarding significant impacts associated with the Project. Such findings are made in Sections IV.2 and IV.3 below.

The EIR/EIS evaluation included a detailed analysis of impacts in 13 environmental disciplines, analyzing the Project and alternatives, including the No Project Alternative. The EIR/EIS discloses the environmental impacts expected to result from the construction and operation of the DPV2 Project. Where possible, mitigation measures were identified to avoid or minimize significant environmental effects. In addition, SCE committed to implementing measures in order to reduce the direct and indirect impacts that will result from Project activities. These measures, referred to as Applicant Proposed Measures (APMs), were identified by SCE in its CPCN Application to the CPUC. Table B-10 (Applicant Proposed Measures) in Section B.5 of the EIR/EIS provides a detailed list of the APMs. The issue area analyses of the EIR/EIS assumed the APMs to be part of the Project, and were applied to help reduce project impacts. APMs are discussed below in the Findings for each applicable environmental impact.

V.1 Environmental Impacts Found to be Less Than Significant

Based on the issue area assessment in the EIR/EIS the Commission determines that the Project will have no impact or less than significant impacts for several issues as summarized in the table below. The rationale for the conclusion that no significant impact would occur in each of the issue areas in the table is based on the detailed discussion of these impacts in the detailed issue area analyses in Section D of the EIR/EIS, located in Volumes 1 and 2, and the cumulative impacts discussed in Section F (Cumulative Scenario and Impacts) of the EIR/EIS that were found to have no impact or less than significant impacts.

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Resource	Impact Evaluation Category	Rationale for No Impact or Less than Significant Impacts
Biological Resources	Impact B-3: Construction activities will create dust that may result in degradation to vegetation	SCE will implement dewatering measures (Air Quality) to decrease fugitive dust including reduced vehicle speeds, use of tackifiers, and periodic watering of the ROW.
	Impact B-4: Construction activities and increased vehicular traffic on access roads will result in disturbance to wildlife species	Local wildlife populations along the ROW will temporarily decline or disperse during the construction phase of the project but will return to their pre-construction levels following the restoration of the laydown areas and tower erection sites. Also, as construction is limited to relatively small areas wildlife will return to the ROW as work crews move to new tower locations.
	Impact B-7: Construction activities will result in indirect or direct loss of listed wildlife or habitat	Invertebrates. There is no indication that any rare or listed invertebrates occur within the Project area. Amphibians. No listed amphibians are located within the habitat conditions of the Project route, or known recorded occurrences of these species do occur in or adjacent to the construction area.
	Impact B-8: Construction activities will result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants	The Arizona segments of the Project contain plant species protected under the Arizona Native Plant Law. However, this portion of the Project does not contain suitable habitat for sensitive plants and is located outside the geographical range for any of the sensitive plant species. These species have not been previously recorded in the Project area and were not identified during surveys conducted by SCE.
	Impact B-9: Construction activities will result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife	Invertebrates. Sensitive invertebrate species were not observed along the Project route; however, the Cheese-weed moth lacewing has a moderate potential to occur in the Arizona segments. Although suitable habitat for the cheese-weed moth lacewing occurs along the project route, known locations of the species are more than 60 miles south of the Project. Consequently, implementation of the APMs B-1, B-3, B-8, B-10, B-12, B-13, B-14, B-16, and B-23 and avoidance of known locations of cheese-weed moth lacewing makes impacts to this species unlikely. Amphibians. There is no indication that any sensitive amphibians occur along the Project route. Surveys conducted of the project area did not detect the presence of sensitive amphibian species and impacts are considered less than significant.
	Impact B-12: Construction activities will result in adverse effects to linkages and wildlife movement corridors	The disturbance associated with project construction will result in temporary impacts to wildlife utilizing the waterways and adjacent habitat as a movement corridor. A temporary increase in traffic and activities in these areas will not impede the movement of wildlife and will not affect the nocturnal movement of wildlife.
	Impact B-13: Construction activities may conflict with local policies or ordinances protecting biological resources	The Project will traverse the jurisdictions of the BLM and Riverside and San Bernardino Counties. Plans developed by these jurisdictions were reviewed to determine if there were any biological resources policies that will apply to the construction and operation of the Project. The Project was found to be applicable to many identified policies as evaluated in Section D.2.6.1.11 of the EIR/EIS. See Appendix 2 of the Draft EIR/EIS for a complete discussion of applicable biological resources policies.
	Impact B-14: Operation of the transmission line may result in electrocution of listed and/or protected bird species	Peregrine falcons, golden eagles, and other large aerial perching birds are most susceptible to electrocution because of their size, distribution, and behavior. In addition, raptor species that utilize the towers for nesting could be electrocuted while landing. Based on studies completed, it was found that the likelihood of electrocutions occurring at voltages greater than 69 kV is extremely low.

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Resource	Impact Evaluation Category	Rationale for No Impact or Less than Significant Impacts
	Impact B-17: Wildlife mortality resulting from traffic on access roads	The operations and maintenance activities will be conducted at about the same frequency as currently exists for the DPV1 transmission line. Vehicle speeds will be limited to a maximum of 25 mph in desert tortoise habitat (APM B-29). The implementation of this APM, and the approximate same level of use of the roads as currently exists for operation and maintenance activities, will result in a similar impact to what currently exists.
Biological Resources, cont.	Impact B-18: The Project will result in disturbance to Management Indicator Species (MIS)	<p>Healthy Diverse Habitats (mule deer). To reduce potential impacts, construction vehicles will remain on established roads except for tower construction in order to avoid unnecessary disturbances to wildlife (see APM B-3), and vehicles will be required to drive at low speeds on NFS lands (see APM A-5). Although construction may result in temporary disturbance to this species, the impact is considered adverse but not significant.</p> <p>Fragmentation (mountain lion). Construction of Devers-Valley No. 2 will result in some loss of habitat as a result of tower footings, access roads, and construction staging areas. However, much of this will be temporary and only a small percentage of regional habitat will be permanently removed at each tower location. In addition, Devers-Valley No. 2 will not create a physical barrier to dispersal or limit the connectivity between core habitat areas. Although construction may result in temporary impacts to mountain lions, impacts are considered adverse but not significant.</p> <p>Montane Conifer Forest (California spotted owl, California black oak, and white fir). Conifer stand and oak woodlands utilized by this species will not be impacted by the Devers-Valley No. 2 Alternative. White fir and black oak are not present in the corridor for Devers-Valley No. 2. Impacts to these MIS will not occur.</p> <p>Aquatic Habitat (Arroyo toad). The arroyo toad is not expected to occur on the designated utility corridor on NFS lands. This species may be present at Whitewater Canyon which is on non-NFS lands. This species will not be affected by Devers-Valley No. 2. Impacts to this MIS will not occur.</p> <p>Oak Regeneration (Blue oak, Engleman oak, and Valley oak). Blue oak, valley oak, and Engleman oaks were not identified in the Project utility corridor and will not be impacted by project construction. Impacts to these MIS will not occur.</p> <p>Bigcone Douglas-fir Forest (Bigcone Douglas-fir). This MIS is not present in the designated utility corridor for the Devers-Valley No. 2 Alternative. Impacts to this MIS will not occur.</p> <p>Coulter Pine Forest (Coulter pine). Coulter pine is a major component of lower montane forests which are not present in the designated utility corridor for Devers-Valley No. 2. Impacts to this MIS will not occur.</p>
	Cumulative Impacts	Several transmission projects are being constructed or proposed within the same utility corridor. The Project will remain primarily within an existing transmission line ROW and will result in minimal permanent impacts to biological resources. Temporarily impacted areas will be restored to pre-existing conditions. Although the Project will accommodate the other transmission and energy projects that will in turn enable future growth and development in the region, the Project will not significantly contribute to cumulative effects of these projects on biological resources.
Visual Resources	V-1 Short-term visibility of construction activities, equipment, and night lighting	Impacts result from visibility of equipment, vehicles, materials and work force; construction and night lighting will be temporary. APMs B-5, B-14, L-1 and L-9 as well as Mitigation Measures V-1a and V-1b will further reduce effects from this less than significant impact.

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Resource	Impact Evaluation Category	Rationale for No Impact or Less than Significant Impacts
Visual Resources, cont.	V-3: Increased structure contrast when viewed from Key Viewpoint 1, south of the Big Horn Mountains	Low level of change at this viewpoint (I-10; west of Burnt Mountains). New structures/conductors visible but not prominent. APMs V-1 thru V-3, V-5 thru V-10, L-4, and L-5 as well as Mitigation Measure V-3a will further reduce effects from this less than significant impact.
	V-4: Increased structure contrast, view blockage, and skylining when viewed from Key Viewpoint 2 on Interstate 10, crossing the Harquahala Plain	Project will be similar in scale and design to the DPV1 line and conductor spans will generally be matched. Mitigation Measure V-3a will further reduce less than significant impacts.
	V-5: Increased structure contrast, view blockage, and skylining when viewed from Key Viewpoint 3 at the north end of the Eagletail Mountains (VRM)	Line/Tower will repeat the characteristics of the existing capacitor bank and will not dominate the view of the casual observer. Mitigation Measure V-3a will further reduce less than significant impacts.
	V-6: Increased structure contrast, industrial character, and skylining when viewing the Arizona Series Capacitor Bank from Pipeline Road (VRM)	New capacitor bank will repeat the characteristics of the existing capacitor bank and will not dominate the view of the casual observer. Mitigation Measures V-6a and V-6c will further reduce less than significant impacts
	V-8: Increased structure contrast, view blockage, and skylining when viewed from Key Viewpoint 5 on U.S. 95 near the Crystal Hill Road Entrance to Kofa NWR	Line/Tower will repeat the characteristics of the existing line and will not dominate the view of the casual observer. Mitigation Measure V-3a will further reduce less than significant impacts.
	V-9: Increased structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 6 on Pipeline Road near Copper Bottom Pass	Line/Tower will repeat the characteristics of the existing line and will not dominate the view of the casual observer. Mitigation Measure V-3a will further reduce less than significant impacts.
	V-10: Increased structure contrast, view blockage, and skylining when viewed from Key Viewpoint 7 on the Colorado River	Line/Tower will repeat the characteristics of the existing line and will not dominate the view of the casual observer. Mitigation Measure V-3a will further reduce less than significant impacts.
	V-11: Increased structure contrast, view blockage, and skylining when viewed from Key Viewpoint 8 on SR 78 Near Ripley	The Project will be similar in scale and design to the DPV1 line and conductor spans will generally be matched. Mitigation Measure V-3a will further reduce less than significant impacts.

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Resource	Impact Evaluation Category	Rationale for No Impact or Less than Significant Impacts
Visual Resources, cont.	V 12: Introduction of new structure contrast and industrial character when viewing the Blythe Optical Repeater Station site from nearby local roads	The facility will appear subordinate to other landscape features including the existing and Project transmission line structures. Mitigation Measures V-6a and V-6c will further reduce less than significant impacts.
	V 13: Increased structure contrast, industrial character, view blockage, and skylining when viewing the Midpoint Substation site from the nearby BLM access road	Substation will repeat the characteristics of the existing line and will not dominate the view of the casual observer. Mitigation Measures V-6a and V-6c will further reduce less than significant impacts.
	V 14: Increased structure contrast, view blockage, and skylining when viewed from Key Viewpoint 9 on Interstate 10 in the eastern Chuck-walla Valley	The Project will be similar in scale and design to the DPV1 line and conductor spans will generally be matched. Mitigation Measure V-3a will further reduce less than significant impacts.
	V 16: Increased structure contrast, view blockage, and skylining when viewing the Orocopa Mountains from Key Viewpoint 11 on Interstate 10	Line/Tower will repeat the characteristics of the existing line and will not dominate the view of the casual observer. Mitigation Measure V-3a will further reduce less than significant impacts.
	V-17: Increased structure contrast, industrial character, and skylining when viewing the proposed California Series Capacitor Bank from Interstate 10 or Red Cloud Road	New capacitor bank will repeat the characteristics of the existing capacitor bank and will not dominate the view of the casual observer. Mitigation Measures V-6a and V-6c will further reduce less than significant impacts
	V-18: Increased structure contrast and view blockage when viewing the Orocopa Mountains from Key Viewpoint 12 on Cottonwood Springs Road when exiting Joshua Tree National Park	Line/Tower will repeat the characteristics of the existing line and will not dominate the view of the casual observer. Mitigation Measure V-3a will further reduce less than significant impacts.
	V-19: Increased structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 13 in the Terra Lago golf and residential development in Indio	Project will be similar in scale and design to the DPV1 line and conductor spans will generally be matched. Mitigation Measure V-3a will further reduce less than significant impacts.

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Resource	Impact Evaluation Category	Rationale for No Impact or Less than Significant Impacts
	V-20: Increased structure contrast, industrial character, and view blockage when viewing the Santa Rosa Mountains to the south from Key Viewpoint 14 in the Coachella Valley Preserve, just west of Thousand Palms Canyon Road	Line/Tower will repeat the characteristics of the existing line and will not dominate the view of the casual observer. Mitigation Measure V-3a will further reduce less than significant impacts.
Land Use	L-1 Construction will temporarily disturb the land uses it traverses or adjacent land uses. L-2 Operation will result in permanent preclusion of land uses it traverses or adjacent land uses	Construction in remote areas will not disturb existing land uses such as at the Harquahala Switchyard and the location of the substations. Operation of the project in areas where the transmission line will be within an existing corridor or adjacent to existing towers will not permanently preclude land uses.
Wilderness & Recreation	WR 1: Construction of the Proposed Project would temporarily reduce access and visitation to recreation or wilderness areas WR-2: Operation would change the character of a recreation or wilderness area, diminishing its recreational value WR-3: Operation would permanently preclude recreational activities.	Construction activities will not directly impact a wilderness or recreational resource. Within segments of the route where there are no wilderness and recreation areas, this impact has been deemed no impact. Operation of Project will not change the character of recreational activities along the Cactus City Rest Area to Devers Substation segment and North of Alligator Rock. The location of the Project will be adjacent to existing utility structures. Within segments of the route where there are no wilderness and recreation areas, this impact has been deemed no impact. Operation of Project will not permanently preclude existing recreational activities along the Harquahala to Kofa NWR segment. The location of the Project will be adjacent to existing utility structures. Within segments of the route where there are no wilderness and recreation areas, this impact has been deemed no impact.
Agriculture	AG-6 Operation will conflict with a Williamson Act contract	Permanent disturbance caused by the Project will not exceed the 10-acre threshold set to determine significance. APM L-5 will minimize conflicts with Williamson Act land.
Cultural Resources	C-1 Construction of the project will cause an adverse change to known historic properties	If known sites are avoided, no impacts to identified and known historic properties will occur as a result of construction disturbances

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Resource	Impact Evaluation Category	Rationale for No Impact or Less than Significant Impacts
	C-2 Construction of the project could cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains	No impacts to buried prehistoric and historical sites, or buried human remains will occur if none of these resources are not encountered or discovered during the Project's ground disturbing construction activities
Noise	N-2: Permanent noise levels along the ROW will increase due to corona noise from operation of the transmission lines	Worst-case wet weather and heavy load conditions will not normally occur continuously during a 24-hour period, but if they do, modeling results provided by SCE in a late-filed exhibit (August 1, 2006) show that the corona noise caused by the Project will be below 65 Ldn at all times for any location greater than 25 feet from the edge of the Devers-Harquahala ROW within the following segments and alternatives, resulting in less than significant impacts: <ul style="list-style-type: none"> • Harquahala to Kofa National Wildlife Refuge • Kofa National Wildlife Refuge • Kofa National Wildlife Refuge to Colorado River • Midpoint Substation to Cactus City Rest Area • Harquahala Switchyard Alternative • SCE and DSW Substations Alternative
Noise, cont.	N-3: Maintenance activities during transmission line operation will increase ambient noise levels	Maintenance visits will be infrequent and will not involve heavy-duty equipment, no notable noise increase will occur as a result of this activity, and the noise impact will be less than significant for all locations along the transmission line ROW.
	N-4: Operation of modified and new substations will result in increased ambient noise levels	The noise levels surrounding the Substation sites will likely be close to 60 dBA near the substation fence. Because of the relatively low level noise sources and the lack of sensitive receptors near the Substation sites, the operational noise impact will be less than significant.
Transportation and Traffic	T-1: A roadway could be temporarily closed to through traffic due to project construction	Prior to conducting work within or above a road ROW, an encroachment permit or similar authorization will be required by the applicable jurisdictional agency at locations where the construction activities will occur within or above the public road ROW. Compliance with the encroachment permits will ensure that potential impacts associated with short-term road closures are less than significant.
	T-2: Temporary road closures due to construction will disrupt the operation of emergency service providers	In the event that an emergency service provider vehicle were to approach a roadway temporarily blocked by overhead construction activities, SCE will be able to accommodate the emergency service provider vehicle by immediately stopping work to allow the passage of the emergency vehicle with minimal delay. Impacts will be less than significant.
	T-3: Construction will cause temporary road and lane closures that will temporarily disrupt bus transit services	Potential closure of freeways or roadways along the Project route will be a one time occurrence that will only last for a few minutes during the early morning before dawn. Therefore, temporary stringing activities will not substantially disrupt Greyhound or local public bus operations. Impacts related to disruptions to bus transit services will be less than significant.

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Resource	Impact Evaluation Category	Rationale for No Impact or Less than Significant Impacts
	T-4: Construction activities will cause temporary road closures that will impede pedestrian and/or bicycle movements	In the event pedestrian or bicycle movement was temporarily blocked during construction, roadways will likely be blocked for only a few minutes. In addition, pedestrians and bicyclists will likely be able to take short detours around blocked roads and construction areas. Impacts will be less than significant.
	T-5: Construction will generate additional traffic on the regional and local roadways	Pursuant to the requirements of APM A-7, workers will drive or ride in project vehicles to work areas along the transmission line ROWs. As the transmission line workers will be dispersed throughout the project area and will not typically be working at the same place at any one time, only minimal traffic increases will occur on the study area roadway network relative to construction workers. Similarly, the construction-related truck traffic will be dispersed throughout the project route and throughout the workday. Project-related construction traffic will result in a less than significant impact on traffic conditions in the project area.
	T-6: Construction will conflict with planned transportation projects	The public agencies that have jurisdiction over the affected roadways have been notified of the project through the Notice of Preparation/Notice of Intent, and an encroachment permit or other such agreement must be obtained for each location where the project will interface with a roadway or other transportation facility. Complying with local permits and agreements will ensure appropriate coordination between SCE and the affected agencies so that conflicts will be avoided or minimized. The impacts will be less than significant.
	T-8: Operation will generate additional traffic on the regional and local roadways	Operation of the transmission line will have negligible impacts on the ground transportation system (roadways and railroads) under normal circumstances, as the inspection and maintenance activities will generate only a very small volume of vehicular traffic. Project-related operational traffic will result in a less than significant impact on traffic conditions in the project area.
	T-9: Construction activities will cause a temporary disruption to rail traffic or operations	The Project will cross the Burlington Northern Santa Fe railroad tracks near Lovekin Boulevard at MP E105. Transmission line stringing activities over the railroad could temporarily affect rail operations. SCE will comply with the regulations and procedures of Burlington Northern Santa Fe relative to disruption to rail service or safety within the railroad ROW. Through compliance with the railroad company requirements, the impacts of the Project on rail traffic and operations will be less than significant.
Transportation and Traffic, cont.	T-10: Construction activities will affect aviation activities associated with public airports	The presence of large cranes that will be required to install the new towers could affect aviation activities associated with the Desert Center Airport, Chiriaco Summit Airport, Banning Airport, San Bernardino International Airport, Blythe Airport, and various heliports. However, pursuant to FAA guidelines, SCE will submit FAA Form 7460 1, Notice of Proposed Construction or Alteration, to the Manager of the FAA Air Traffic Division for review and approval of the project. Adherence to FAA guidelines will insure that construction impacts to aviation activities will be less than significant.
	T-11: Operations will affect aviation activities associated with public airports	The presence of new towers could affect aviation activities associated with the Desert Center Airport, Chiriaco Summit Airport, Banning Airport, San Bernardino International Airport, Blythe Airport, and various heliports. However, pursuant to FAA guidelines, SCE will submit FAA Form 7460 1, Notice of Proposed Construction or Alteration, to the Manager of the FAA Air Traffic Division for review and approval of the project. Adherence to FAA guidelines will insure that construction impacts to aviation activities will be less than significant.

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Resource	Impact Evaluation Category	Rationale for No Impact or Less than Significant Impacts
Public Health and Safety	T-13: Helicopter use during construction could conflict with rescue helicopter use within the Kofa National Wildlife Refuge	Because of the remote nature of the Kofa NWR, helicopters are sometimes used for rescue operations. This situation is not expected to occur frequently, and the impact is less than significant. However, in order to ensure that these rescue flights do not conflict with SCE's construction helicopter operations, Mitigation Measure T-13a will be implemented.
	T-14: Construction use of roads could result in increased public use of unauthorized roads with the Kofa National Wildlife Refuge	The utility road at the west Refuge boundary (Highway 95) to approximately Milepost 79.5 (where the utility road joins Crystal Hill Road) is not a public access road. The public may see construction vehicles using this road and think that it is available for public use. Public use of this road will result in an adverse, but less than significant. However, in order to prevent public use of this road, Mitigation Measure T-14a will be implemented.
	Cumulative Traffic Impacts	None of the traffic impacts associated with the Project have the potential to combine with the impacts of other projects to create a cumulatively considerable traffic impact. Those impacts from other projects that have the potential to combine cumulatively with impacts from the Project will be in the use of roads for delivery of labor and materials. However, in undeveloped areas traffic volumes are low, so this will not create a significant impact. In urban and urbanizing areas, the volume of traffic associated with the projects is not sufficiently large to create a cumulatively considerable impact.
	PS-3 Effects on Cardiac Pacemakers	While the transmission line's electric field may impact operation of some older model pacemakers, the result of the interference is of short duration and will not be significant or harmful.
Public Health and Safety, cont.	PS-4 Wind, Earthquake, and Fire Hazards	SCE is required to design the transmission line in accordance with safety requirements of the CPUC's G.O. 95 and other applicable requirements, so safety impacts associated with wind, earthquake and fire will not be significant.
	PS-5 Transmission Lines in Agricultural Areas Present a Safety Hazard to Aerial Applicators	Pilots are now aware of the presence of the DPV1 transmission line, which has been in place since 1982. However, pilots may have no knowledge that new transmission lines and towers may have been constructed, which creates an increased danger. While this will be an adverse, but less than significant impact, Mitigation Measures A-1a and A-4a will further reduce the impact.
	PS-5 Transmission Lines in Agricultural Areas Present a Safety Hazard to Aerial Applicators	Although most facilities of this type may received power from the SCE grid supplied by DPV2, the facilities will also have back up power/generators to prevent electricity interruptions in the event of an outage, such as will occur with a terrorist attack on a transmission line.
Air Quality	AQ-1: Construction will generate dust and exhaust emissions	The level of construction activity within Maricopa County Air Quality Department (MCAQD) district will be relatively minor resulting in emissions well below the applicable thresholds. Additionally, the earthmoving permits required by the MCAQD will require Best Available Control Measures (BACM) for construction dust control, which will assure that dust emissions will be controlled sufficiently to remain below the significance threshold. The regional emission impact for MCAQD is less than significant.
	AQ-2: Operation, maintenance, and inspections will generate dust and exhaust emissions	The emissions caused directly by operation, maintenance, and inspection of the Project will be below all applicable regional daily and annual emission thresholds. The emissions show that the Project will not result in significant direct operational emissions within any jurisdiction. Therefore, the operational impacts of the Project will not conflict with any air quality management plan, and the project's direct operations will have a less than significant impact.

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Resource	Impact Evaluation Category	Rationale for No Impact or Less than Significant Impacts
Hydrology and Water Quality	AQ-3: Power generated during transmission line operation will cause emissions from power plants	The precise location and quantity of operational transmission line emissions will likely change over time depending on the ultimate sources of power flowing into DPV2. Any NOx emissions represent a small change when considered in a statewide context. The increase in power plant emissions along the Project route, therefore, is considered to be an adverse but less than-significant-impact.
	H-1 Construction activity could degrade water quality due to erosion and sedimentation	With the implementation of APMs W-1 through W-3, and W-7 through W-9 and the required SWPPP, construction-related water quality degradation from soil erosion and sedimentation will not be significant.
	H-3 Increased runoff from new impervious areas resulting in flooding or increased erosion downstream	As the amount of new impervious area created by the Project will be generally small, it will only result in small increases in runoff that are not likely to have an appreciable impact. Implementation of APM W-8 will ensure that the adverse effects associated with increased runoff from new impervious areas will be less than significant
	H-5 Excavation could degrade groundwater quality	Discharge of spilled pollutants into excavated areas will be minimized by the hazardous material plans required pursuant to APMs W-3.
	Cumulative Hydrology and Water Resources Impacts	Overall, the Project's impacts on hydrology and water resources were found to be less than significant with mitigation incorporated. In addition, the contribution of the Project to the cumulative increase in flood discharges, flood flows, impacts to groundwater supplies, degradation of water quality, will be negligible.
Geology, Soils, and Mineral Resources	G-1 Construction could accelerate erosion	In the Palo Verde Valley and Midpoint Substation segments and in the segments west of Banning, excavation and grading for tower foundations, work areas, access roads, and spur roads could loosen soil and accelerate erosion. However, because the soil associations identified along the segment are not known to contain desert pavement, implementation of APMs W-3, W-7 through W-9, W-11, G-10 through G-14, and G-19 will ensure that potential impacts will be less than significant
	G-5 Project structures could be damaged by seismically included groundshaking and ground failure	At Midpoint Substation, there will be no impacts associated with seismically induced ground failure or groundshaking. In the segments west of the Midpoint Substation, it is likely that the transmission line towers will be subjected to at least one moderate or larger earthquake occurring close enough to produce groundshaking along this segment. However, implementation of APMs G-4 and G-17 will ensure that impacts related to seismically included groundshaking are less than significant
Geology, Soils, and Mineral Resources, cont.	Cumulative Geologic Impacts	Cumulative impacts consist of the loss of unique geologic features or known mineral and/or energy resources, or the triggering or acceleration of erosion or slope failures. Because other identified projects in the project area will need to comply with erosion control requirements, the effects of these projects in conjunction with Project on the geologic environment are not cumulatively considerable.

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Resource	Impact Evaluation Category	Rationale for No Impact or Less than Significant Impacts
Socioeconomics	S-1: Accidents during project construction will disrupt utility systems	As required by Arizona State Underground Facilities Law or, simply, the Blue Stake Law, (ARS Chapter 2, Article 6.3, Sections 40-360.21 through 40-360.32), SCE will contact a regional notification center at least two days prior to any excavation, trenching, or other digging activities. In addition, according to Section 1, Chapter 3.1, "Protection of Underground Infrastructure," Article 2 of California Government Code 4216-4216.9, SCE will contact a regional notification center at least two days prior to excavation of any subsurface installation. The application of these required activities, impacts related to a collocation or utility disruption will be less than significant.
	S-2: Project construction will place demands on local water or solid waste utilities	Water used during Project construction and operation is not anticipated to place demands on the available water suppliers serving the route resulting and requiring the need for new or expanded water facilities. Consequently, water demands of the Project will have a less than significant impact. The volume of waste generated by Project construction and operation will be very small compared to the capacities of the landfills serving the route. These landfills will have adequate capacity to receive solid waste generated during construction and operation of the Project. Less than significant impacts to solid waste facilities will occur.
	S-3: Project operation will provide revenue to the Agua Caliente Band of Cahuilla Indians	The Project will traverse allottee lands under the jurisdiction of the Agua Caliente Band of Cahuilla Indians. If it is determined that a CUP is not necessary, any compensation provided to the Agua Caliente Band of Cahuilla Indians as a part of negotiations over the land will also provide revenue for the Agua Caliente. Revenue generation will be considered a beneficial impact to the Tribe. Therefore, under the Project, payments made by SCE to the Agua Caliente Band of Cahuilla Indians in the form of fees or compensation will provide a beneficial socioeconomic impact.
	Cumulative Socioeconomics Impacts	The siting of the Project in addition to the other transmission projects will not significantly increase the potential for a collocation accident or a disruption to the utility system. As the Project will adhere to California Government Code 4216-4216.9 and the Arizona State Underground Facilities Law, the Project will not have a significant incremental contribution to potential utility disruptions. Cumulative project construction could place demands on local water or solid waste services. However, local planning agencies augment or develop water, wastewater and solid waste facilities to meet the anticipated needs of population projected for the region. Therefore, the current cumulative impact of all development projects within the cumulative area of impact on water and solid waste facilities serving the areas is less than significant because the impacts of growth have already been anticipated and accommodated in approved plans.

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V.2 Significant Environmental Impacts That Have Been Reduced to a Less than Significant Level

The Final EIR/EIS for the Devers-Palo Verde No. 2 Transmission Project included thorough consideration of the environmental resources along the Project route and of the potential impacts associated with the Project. The CPUC has determined that the mitigation measures identified for this Project will reduce impacts associated with construction and operation activities and that these effects or impacts have been mitigated to a level of insignificance.

Each potentially significant impact discussed in the Final EIR/EIS is presented below with the finding identified for each issue. The Commission hereby finds, pursuant to Section 21081, that the following potential environmental impacts can and will be mitigated to below a level of significance based upon the implementation of the mitigation measures in the EIR/EIS. These findings are based on the discussion of impacts in the detailed issue area analyses in Section D of the EIR/EIS, located in Volumes 1 and 2 and the cumulative impacts discussed in Section F (Cumulative Scenario and Impacts) of the EIR/EIS.

V.2.1 Biological Resources

As discussed in Section D.2 (Biological Resources) of the EIR/EIS, extensive literature searches were conducted consisting of a review of relevant databases, maps, technical reports, jurisdictional plans and policies, as well as relevant environmental documents to determine the federal and State listed endangered, threatened, proposed endangered or threatened, rare, and special-status plant and wildlife species that have potential to occur within the vicinity of the Project route. Abundant biological resources data for the Project were available in databases and in existing reports as a result of previous biological studies conducted for the adjacent DPV1 Project. In addition, extensive field surveys were conducted in order to verify the location of any habitat or species of wildlife that will be affected by new project development and areas of temporary construction activity. Within the Arizona portion of the Project, a team of biologists surveyed the Arizona portion of the proposed DPV2 route on October 6, 7, 12, 13, 25, 26, and 27, 2005. Within the California portion of the Project, biological reconnaissance surveys were conducted during October and November 2005. Specific dates of the surveys were October 18-21 and 31, and November 1-3, 2005. In addition to performing an overview survey of the entire length of the Project route, each tower site and spur road where disturbance would occur was surveyed.

For the purposes of the analysis in the EIR/EIS and based on NEPA and CEQA requirements, biological resources identified include all plant and wildlife species and habitat observed during field studies and all those included in the results of the literature review. Those identified were analyzed in order to identify portions of the ROW that are known to support listed and special-status plant and wildlife species, or are most likely to support habitat for listed and special-status plant and wildlife species.

Impact B-1: Construction activities would result in temporary and permanent loss of native vegetation

As discussed in Section D.2 (Biological Resources) of the EIR/EIS, the Project will result in both temporary and permanent impacts to a variety of regionally unique habitats. Ground-disturbing activity, including tower pad preparation and construction, grading of new access roads, transportation, maintenance of construction equipment and supplies, staging area and material yard preparation and use, and use or improvement of existing access roads has the potential to disturb the vegetation communities. This impact was found to be consistent for all Project and alternative routes segments studied. APMs B-1, B-3, B-4,

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B-6, B-13, B-16, B-17, B-19, B-25, B-26, B-33, B-34, and B-36 have been incorporated into the Project to reduce impact to native vegetation. A complete description of APMs applicable to Biological Resources is located in EIR/EIS Table D.2-6.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-1. The CPUC finds that the following mitigation measures will mitigate significant effects on native vegetation from Impact B-1 to a less than significant level. These measures are identified as B-1a and B-1b below.

B-1a Prepare and implement a Habitat Restoration/Compensation Plan. SCE shall restore all areas disturbed by project construction, including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations that are removed during construction of the Proposed Project. Where onsite restoration is planned for mitigation of temporary impacts to sensitive vegetation communities, SCE shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC/BLM. Hydroseeding, drill seeding, or an otherwise proved restoration technique shall be utilized on all disturbed surfaces using a locally endemic native seed mix approved by the CPUC/CDFG/AGFD/FWS and BLM. SCE shall flag the limits of disturbance at each construction site. The Plan shall incorporate the measures identified in the June 2006 Memorandum of Understanding regarding vegetation management along rights-of-way for electrical transmission and distribution facilities on federal lands. In project areas that occur in the WRCMSHCP plan area, SCE shall use the applicable Best Management Practices identified in the WRCMSHCP.

The creation or restoration of habitat shall be monitored for five years after mitigation site construction, or until established success criteria are met, to assess progress and identify potential problems with the restoration site. Remedial activities (e.g., additional planting, weeding, or erosion control) shall be taken during the monitoring period if necessary to ensure the success of the restoration effort. If the mitigation fails to meet the established performance criteria after the five-year maintenance and monitoring period, monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise noted by the CPUC/BLM.

B-1b Coordinate tower placement with USFWS/BLM. Where the proposed route crosses the Kofa National Wildlife Refuge, SCE shall coordinate with the U.S. Fish and Wildlife Service, Division of Refuges' refuge management personnel to determine specific tower site and spur road locations in order to minimize habitat disturbance and/or the loss of valuable habitat features. SCE shall demonstrate compliance with this measure prior to construction.

Rationale for Finding. Implementation of the above mitigation measures will restore all areas disturbed by Project construction, including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations and coordinating where the Project route crosses the Kofa National Wildlife Refuge, impacts to native vegetation will be mitigated to a less than significant level.

Reference. Section D.2 provides a complete assessment of the biological resources impacts of the Project.

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Impact B-2: Construction activities would result in the introduction invasive non-native or noxious plant species

As discussed in Section D.2 of the EIR/EIS, the Project will temporarily remove native vegetation communities at the construction sites located adjacent to each tower and along access roads, laydown areas or Substation sites. Introduction of non-native plant species will occur primarily during construction, but will also continue to occur during operation and maintenance phases of the Project. This impact was found to be consistent for all Project and alternative route segments studied. APMs B-2, B-11, and B-19 have been incorporated into the Project to reduce impacts related to invasive non-native or noxious plant species. A complete description of APMs applicable to Biological Resources is located in EIR/EIS Table D.2-6.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-2. The CPUC finds that implementation of mitigation measures B-1a (above under Impact B-1), and B-2a, and B-2b below will mitigate significant effects of invasive non-native or noxious plant species from Impact B-2 to a less than significant level.

B-2a Conduct invasive and noxious weed inventory. SCE shall survey the project corridor, including access roads, for populations of invasive and noxious weeds prior to the start of construction. All populations of invasive and noxious weeds within 500 feet of each tower location shall be flagged prior to construction. The Applicant shall submit a Noxious Weed Control Plan to BLM, CPUC, ADGF, CDFG, and/or USFWS at least 60 days prior to the start of construction. The weed control plan shall specify the location of existing weed populations; measures to control introduction and spread of noxious weeds in the project corridor; worker training, specifications, and inspection procedures for construction materials and equipment used in the project corridor; post-construction monitoring for noxious weeds; and eradication and control methods.

Known populations of invasive and noxious weeds in the project corridor shall be evaluated by BLM, CPUC, CDFG, and USFWS to identify candidates for eradication. Selected weed populations shall then be eradicated prior to construction.

All seeds and straw material shall be certified weed free. All gravel and fill material used during project construction and maintenance shall be certified weed free by the local County Agriculture Commissioner's Office.

B-2b Implement control measures for invasive and noxious weeds. SCE shall adhere to the BLM management guidelines for reducing the potential for the introduction of noxious weeds and invasive, non-native plant species by implementation of the following standards:

- Wash all equipment and vehicles. Vehicles and all equipment must be washed BEFORE AND AFTER entering all project sites unless otherwise directed in writing by the BLM. This includes wheels, undercarriages, bumpers and all parts of the vehicle. In addition, all tools such as chain saws, hand clippers, pruners, etc., must also be washed BEFORE AND AFTER entering all project areas. For example, vehicles traveling into contaminated areas are the main dispersal mechanism for yellow star-thistle. All washing must take place where rinse water is collected and disposed of in either a sanitary sewer or a landfill.

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- Keep written logs. When vehicles and equipment are washed, a daily log must be kept stating the location, date and time, types of equipment, methods used and staff present. The log shall contain the signature of the responsible crewmember.
- Written logs will be available for CPUC/BLM inspection and shall be turned in to BLM on a weekly basis.
- Post-construction weed abatement on the Coachella Valley Preserve. Post-construction follow-up weed abatement will be conducted on the work areas within the Coachella Valley Preserve and Kofa National Wildlife Refuge. Weed abatement will be conducted during the spring following construction and prior to when the weeds establish flowers or produce seeds.

Rationale for Finding. Implementation of the measures outlined in B-1a, B-2a, and B-2b will restore all areas disturbed by project construction, including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access and spur roads; surveying the project corridor (including access roads) for populations of invasive and noxious weeds prior to the start of construction; and implement construction control measures to control invasive and noxious weeds, impacts to the corridor related to invasive and noxious weeds will be mitigated. Therefore, impacts to these lands will be reduced a less than significant level.

Reference. Section D.2 provides a complete assessment of the biological resources impacts of the Project.

Impact B-5: Construction activities during the breeding season would result in a potential loss of nesting birds

As discussed in Section D.2 of the EIR/EIS, construction activities, including the construction of towers, the establishment of staging/laydown facilities, stringing of conductors, and the increased presence of humans may result in direct or indirect impacts to nesting birds that may occur in the ROW. This impact was found to be consistent for all Project and alternative route segments studied. APMs B-8 and B-16 have been incorporated into the Project to reduce the possibility of impacts from construction activities during the breeding season for raptors and other migratory birds. A complete description of APMs applicable to Biological Resources is located in EIR/EIS Table D.2-6.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-5. The CPUC finds that the following mitigation measure will mitigate significant effects to birds from Impact B-5 to a less than significant level. This measure is identified as B-5a below.

B-5a Conduct pre-construction surveys and monitoring for breeding birds. SCE shall conduct protocol level surveys for nesting birds if construction activities are scheduled to occur during the breeding season for raptors and other migratory birds. Surveys shall be conducted in areas within 500 feet of tower sites, laydown/staging areas, substation sites, and access road/spur road locations. SCE shall be responsible for designating a CPUC/BLM-approved qualified biologist who can conduct pre-construction surveys and monitoring for breeding birds. If State or federally listed birds with active nests are found, a biological monitor shall establish a 500-foot buffer around the nest and no activities will be allowed within the buffer until the young have fledged from the nest or the nest fails. The biological monitor shall conduct regular monitoring of the nest to determine success/failure and to ensure that project activities are not conducted within the 500-foot buffer

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until the nesting cycle is complete or the nest fails. The biological monitor shall be responsible for documenting the results of the surveys and the ongoing monitoring. A 300-foot buffer shall be implemented in the event that raptors or other species protected under the MBTA are located. This buffer will be evaluated after consultation with the CPUC/BLM/CDFG/and USFWS.

Rationale for Finding. By conducting protocol level surveys for nesting birds if construction activities are scheduled to occur during the breeding season for raptors and other migratory birds, as outlined above in B-5a, impacts to the corridor related to breeding birds will be mitigated to a less than significant level.

Reference. Section D.2 provides a complete assessment of the biological resources impacts of the Project.

Impact B-6: Construction activities would result in indirect or direct loss of listed plants

As discussed in Section D.2 of the EIR/EIS, Construction activities, including the construction of towers, the establishment of staging/laydown facilities, stringing of conductors, and the increased presence of humans may result in direct or indirect impacts to listed plant species that may occur in the ROW. This impact was found to be consistent for all Project segments and alternative route segments. APMs B-3, B-4, B-8, B-9, B-12, B-13, and B-19 have been incorporated into the Project to reduce impacts to listed plants. A complete description of APMs applicable to Biological Resources is located in EIR/EIS Table D.2-6.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-6. The CPUC finds that implementation of the mitigation measure below will mitigate significant Project effects to listed plant species from Impact B-6 to a less than significant level. This measure is identified as B-6a below.

B-6a Develop a transplanting plan. In coordination with the BLM, SCE shall prepare a transplanting plan in compliance with both Arizona and California laws and regulations regarding native and sensitive plants, prior to project construction activities. The plan will provide details on the plants being transplanted, including which species and how many individuals of each species; where the plants will be transplanted; how the plants will be transplanted; how the plants will be maintained during the transplanting efforts; and if the plants will be used to re-vegetate disturbed areas of the construction site. As a condition of the plan, a pre-construction survey will be conducted to mark (using bright-colored flagging) all plants that will be transplanted. Some cacti will need to be transplanted facing the same direction as they currently face (in other words, the north side of the plant must stay facing the north); these cacti will be identified in the plan and appropriately marked to identify which side faces north. For listed plant species SCE shall identify if the plants can be avoided. If avoidance is not possible, SCE shall purchase off site mitigation in coordination with the USFWS and CDFG.

Rationale for Finding. Incorporation of all APMs and implementation of the measures outlined above in mitigation measure B-6a will ensure that all listed plant species potentially impacted will be relocated, and impacts to listed plant species will be reduced to a less than significant level.

Reference. Section D.2 provides a complete assessment of the biological resources impacts of the Project.

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Impact B-7: Construction activities would result in indirect or direct loss of listed wildlife or habitat

As discussed in Section D.2 of the EIR/EIS, impacts to listed species could be caused by temporary incremental loss of habitat and accidental death of wildlife during land clearing, excavation, and grading phases of the Project. In addition, wildlife near the construction area may temporarily abandon their territories due to disturbance from noise and increased human activity. In particular, this impact is specific to the following locations, wildlife, and habitat:

- Razorback Sucker Fish: the Kofa National Wildlife Refuge to Colorado River, and the Palo Verde Valley to Midpoint Substation segments.
- Sonoran Desert Tortoise: all segments of the Project as proposed by SCE.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-7. The CPUC finds that implementation of the mitigation measure below will mitigate significant Project effects to the Razorback Sucker Fish from Impact B-7 to a less than significant level. This measure is identified as B-7a below.

B-7a Avoid Colorado River. All tower pads, equipment laydown areas, and pulling sites would be located outside flowing portions of the Colorado River and flowing tributaries of the river.

The CPUC finds that implementation of the mitigation measures below will mitigate significant effects to the Sonoran Desert Tortoise from Impact B-7 to a less than significant level. These measures are identified as B-7b and B-7c below.

B-7b Conduct pre-construction tortoise surveys. Prior to construction, SCE shall survey the transmission line corridor for desert tortoise burrows and pallets within fourteen (14) days preceding construction. Tortoise burrows and pallets encountered within the construction zone (if any) will be conspicuously flagged by the surveying biologist(s) and avoided during all construction activities.

- During construction activities, SCE shall inspect under equipment and vehicles prior to moving equipment. If tortoises are encountered, the vehicle will not be moved until such animals have voluntarily moved to a safe distance away from the parked vehicle or a qualified biologist moves the tortoise.
- SCE shall monitor construction activities in all areas with the potential to support desert tortoise.
- Desert tortoises will be handled only by a FWS/CDFG permitted and authorized tortoise handler and only when necessary. New latex gloves will be used when handling each desert tortoise to avoid the transfer of infectious diseases between animals. Desert tortoises will be moved the minimum distance possible within appropriate habitat to ensure their safety. In general, desert tortoises will not be moved in excess of 1,000 feet for adults and 300 feet for hatchlings.
- Desert tortoises that are found above ground and need to be moved will be placed in the shade of a shrub. All desert tortoises removed from burrows will be placed in an unoccupied burrow of approximately the same size as the one from which it was removed. All excavation of desert tortoise burrows will be done using hand tools, either by, or under the direct supervision of, an authorized tortoise handler. If an existing burrow is unavailable, an authorized

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tortoise handler will construct or direct the construction of a burrow of similar shape, size, depth, and orientation as the original burrow. Desert tortoises moved during inactive periods will be monitored for at least two days after placement in the new burrows to ensure their safety. An authorized tortoise handler will be allowed some judgment and discretion to ensure that survival of the desert tortoise is likely.

- If desert tortoises need to be moved at a time of the day when ambient temperatures could harm them (less than 40°F or greater than 90°F), they will be held overnight in a clean cardboard box. These desert tortoises shall be kept in the care of an authorized tortoise handler under appropriate controlled temperatures and released the following day when temperatures are favorable. All cardboard boxes will be appropriately discarded after one use.
- All desert tortoises moved will be marked for future identification. An identification number using the acrylic paint/epoxy covering technique should be placed on the fourth costal scute. No notching would be authorized.

B-7c Purchase mitigation lands for impacts to tortoise habitat. Following construction, SCE shall acquire lands to compensate for the loss of tortoise habitat within the Category II and III management areas in Arizona and California. The amount of land to be acquired will depend on the acreage of disturbance within these management areas. Acquired lands will be in a nearby area of good tortoise density and within tortoise habitat. BLM and SCE shall conduct a field inspection of the disturbed areas after completion of construction of the transmission line to determine the exact acreage required for compensation. The lands purchased will be transferred to the United States and be administered by the BLM. Land may be transferred to the BLM and/or incorporated into an existing management area.

Rationale for Finding. The measures outlined in B-7a, B-7b, and B-7c will reduce impacts to loss of listed wildlife or habitat by conducting appropriate surveys and purchasing lands for mitigation of removed habitat.

Reference. Section D.2 provides a complete assessment of the biological resources impacts of the Project.

Impact B-8: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants

As discussed in Section D.2 of the EIR/EIS, Construction activities, including the construction of towers, the establishment of staging/laydown facilities, stringing of conductors, and the increased presence of humans may result in direct or indirect impacts to habitat containing sensitive plant species that may occur in the ROW. This impact was found to be consistent for all Project and alternative route segments studied. APMs B-8 and B-9 have been incorporated into the Project to reduce significant effects to listed plant species from Impact B-8 to a less than significant level. A complete description of APMs applicable to Biological Resources is located in EIR/EIS Table D.2-6.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-8. The CPUC finds that implementation of the mitigation measure below will mitigate significant Project effects to listed plant species from Impact B-8 to a less than significant level. This measure is identified as B-8a below.

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B-8a Conduct surveys for listed plant species. SCE shall conduct focused surveys for listed and sensitive plants prior to construction. Surveys shall be conducted during the appropriate floristic period necessary for the identification of sensitive plant species in all suitable habitat located within the project ROW and within 100' of all surface disturbing activities.

Populations of sensitive plants shall be flagged and mapped prior to construction. If listed plants are located during the focused surveys, then modification of the placement of towers, access roads, laydown areas, and other ground disturbing activities would be implemented in order to avoid listed plants. If listed plants cannot be avoided, SCE shall be responsible for the translocation of plants and/or collection of seeds from existing populations that would be impacted and the planting/seedling of these plants in adjacent suitable portions of the ROW that would not be affected by Proposed Project construction or maintenance activities.

Rationale for Finding. Implementation of Mitigation Measure B-8a will ensure that impacts to sensitive plant species habitat will be reduced as all sensitive plant species potentially impacted will be identified, and construction activities will avoid these areas.

Reference. Section D.2 provides a complete assessment of the biological resources impacts of the Project.

Impact B-9: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife

As discussed in Section D.2 of the EIR/EIS, Construction activities, including the construction of towers, the establishment of staging/laydown facilities, stringing of conductors, and the increased presence of humans may result in direct or indirect impacts to habitat containing sensitive wildlife species that may occur in the ROW. This impact was found to be consistent for all Project alternative route segments studied. APMs B-1, B-3, B-5, B-8, B-10, B-12, B-13, B-14, B-16, B-17, B-21, B-23, B-25, B-29, and B-38 have been incorporated into the Project to reduce significant effects to sensitive wildlife habitat. A complete description of APMs applicable to Biological Resources is located in EIR/EIS Table D.2-6.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-9. The CPUC finds that the implementation of Mitigation Measures identified as B-9a through B-9i below will reduce significant effects to individuals or habitat for sensitive wildlife species from Impact B-9 to a less than significant level.

B-9a Conduct pre-construction surveys. SCE shall conduct pre-construction surveys for sensitive wildlife in any area subject to project disturbance. Surveys shall be conducted during a time of year when these species are known to be active. The location of sensitive species identified during the pre-construction surveys shall be identified on project maps.

B-9b Conduct biological monitoring. SCE shall conduct biological monitoring of the project area including the laydown, staging, access roads, and any area subject to project disturbance. The biological monitor shall look for sensitive wildlife species (including forest watch list animals and Forest Service Region 5 sensitive species) that may be located within or immediately adjacent to the construction areas. If sensitive species are found, the biological monitor shall move them out of harm's way (listed species require take authorization) to avoid direct impacts to these species. In the event that the wildlife species may cause harm to the biologist, the biologist shall notify the construction crews and monitor the species until it moves out of harm's way. The results of all

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monitoring shall be recorded in daily monitoring notes that shall be included as part of the required monitoring reports for the project. The SCE shall notify the CPUC/BLM if any sensitive species are located during construction of the project. SCE shall notify the Forest Service of all sensitive species found on Forest Service land.

B-9c Implement a Worker Environmental Awareness Program. A Worker Environmental Awareness Program (WEAP) shall be implemented for construction crews by a qualified biologist(s) provided by SCE and approved by the CPUC/BLM prior to the commencement of construction activities. Training materials and briefings shall include but not be limited to, discussion of the Federal and State Endangered Species Acts, the consequences of noncompliance with these acts, identification and values of sensitive plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on forest service lands and identification of Forest Service sensitive species and MIS wildlife species, hazardous substance spill prevention and containment measures, and review of mitigation requirements. Training materials and a course outline shall be provided to the CPUC and BLM for review and approval at least 30 days prior to the start of construction. Training materials and updates of training materials shall also be provided to the Forest Service for review and comment. SCE shall provide to the CPUC and BLM a list of construction personnel who have completed training, and this list shall be updated by SCE as required when new personnel start work. No construction worker may work in the field for more than 5 days without receiving the WEAP.

B-9d Conduct pre-construction reptile surveys. Prior to construction, SCE shall conduct surveys in areas of suitable habitat for Sonoran desert tortoise, common chuckwalla, banded Gila monster, and desert rosy boa within 48 hours prior to the start of construction activities. If common chuckwallas, banded Gila monsters and/or desert rosy boas are found on the construction site, they will be relocated to nearby suitable habitat outside the construction area. Following the clearance surveys, exclusion fencing will be erected or a biological monitor will be onsite during construction activities.

- If potentially suitable burrows or rock piles are found, they will be checked for occupancy. Occupied burrows will be flagged and avoided (employing a 50-foot buffer) during construction. If the burrow cannot be avoided, it will be excavated and the occupant relocated to an unoccupied burrow outside the construction area and of approximately the same size as the one from which it was removed. If an existing burrow is unavailable, the biologist will construct or direct the construction of a burrow of similar shape, size, depth, and orientation as the original. Trenches, holes, or other excavations will be examined for banded Gila monster prior to filling. If individuals are found, the biological monitor will relocate them to nearby suitable habitat.
- During construction, if a common chuckwalla, banded Gila monster, and/or desert rosy boa occur on the project site, construction activities adjacent to the individual's location will be halted and the animal will be allowed to move away from the construction site. If the individual is not moving, a qualified biologist will relocate it to nearby suitable habitat outside the construction area. It shall be placed in the shade of a shrub. The Forest Service will be notified of any sensitive wildlife identified on NFS lands. Also during construction, if a Sonoran desert tortoise occurs on the project site, construction activities adjacent to the individuals location will be halted and the *Guidelines for Handling Sonoran Desert Tortoises Encountered During Construction Projects* will be followed by qualified personnel.

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- B-9e Conduct pre-construction surveys and owl relocation.** Prior to construction, SCE shall conduct pre-construction surveys for the western burrowing owl. Surveys shall be conducted prior to ground disturbance activities in appropriate areas within the potential impact areas of the project to determine the presence of burrowing owls and to ensure clearance of these areas. If active owl burrows are discovered during pre-construction surveys, owls would be evicted from the burrows using either active or passive techniques as recommended by the BLM and Burrowing Owl Consortium. Owl relocation, as well as discouragement of owls from returning to the site, will occur in the following manner:
- During the non-breeding season (September 1 through January 31), burrowing owls occupying the Proposed Project site will be evicted by passive relocation. Passive relocation would include installation of one-way doors on burrow entrances that would let owls out of the burrow but would not let them back in.
 - If construction is to occur during the breeding season (February 1 through August 31) and prior to the relocation of the owls, 75-meter (246-foot) protective buffers would be maintained around burrows occupied by owls until a BLM approved biologist approves other action. Other actions could include passive relocation if it is determined that owls have not begun laying eggs or postponement of construction in the area until the young are fledged and no longer dependent upon the nest burrow.
 - Once fledglings are capable of independent survival and adult non-breeding owls have successfully been relocated offsite, potential owl habitat (squirrel burrows) would be collapsed in order to keep the owls from returning. Ground squirrels would be removed from the site by trapping and relocation or by other approved means. Following squirrel removal, existing ground squirrel burrows would be destroyed.
- B-9f Perform construction outside of breeding and lambing period.** Construction activities conducted within suitable habitat near Burnt Mountain, Harquahala Mountain, and Kofa NWR shall not occur during the period of the year when bighorn sheep are lambing (from January 1 to April 30). A pre-construction survey for bighorn sheep shall be conducted on Forest Service lands prior to construction and maintenance of the transmission lines. If bighorn sheep are found, then SCE shall consult with the Forest Service, USFWS, and Bighorn Institute to identify appropriate avoidance measures.
- B-9g Conduct pre-construction surveys and relocation for American badger.** Prior to construction, SCE shall conduct pre-construction surveys for American badger. Surveys will be conducted prior to ground disturbance activities in areas that contain habitat for this species. Badger dens located outside the project area shall be flagged for avoidance. Unoccupied dens located in the right of way shall be covered to prevent the animal from re-occupying the den prior to construction. If occupied dens are identified in the area of the ROW that must be disturbed, the CDFG/BLM/Forest Service shall be consulted regarding options for action. Hand-excavation is an option if occupied dens cannot be avoided, but alternatives shall be considered due to potential danger to biologists. Dens shall be hand-excavated only before or after the breeding season (February 1–May 30). Any relocation of badgers shall take place after consultation with the BLM, Forest Service, and CDFG.
- B-9h Conduct pre-construction surveys for roosting bats.** SCE shall conduct surveys focused surveys for suitable roosting habitat or nursery sites for sensitive bats at the tower location, access/

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spur roads, and laydown/staging areas that occur in rocky areas or in areas where caves or old mines are present. If suitable roosting/nursery sites are found, then focused surveys shall be conducted to determine if the sites support sensitive bat species. If sensitive bat species occur at these sensitive roosting/nursery sites, then tower-specific adjustments and adjustments of the locations of access/spur roads and laydown/staging areas shall be made to avoid these sites. If towers, access/spur roads, and/or laydown/staging areas cannot avoid these sites, then construction of the towers, roads, and establishment of laydown/staging areas shall be delayed until the breeding cycles for the sensitive bats are completed. SCE shall consult with a bat specialist in order to determine when the breeding cycle for the sensitive bats are completed. SCE shall document the results of the surveys and any avoidance of roosting/nursery sites for sensitive bats.

- B-9i** **Schedule construction when the Coachella Valley round-tailed squirrel is dormant.** SCE shall conduct pre-construction surveys for Coachella Round Tailed Squirrels prior to construction to identify locations of nesting colonies. Placement of footings, roads, and laydown areas shall avoid nesting colonies of this species. If this species is identified within the ROW, construction activities shall be scheduled only during periods when this species is dormant (between August 1 and February 28).

Rationale for Finding. By conducting field surveys and coordinating relocation efforts, all sensitive wildlife species and habitat potentially impacted will be identified, and construction activities will avoid these areas. The measures outlined in B-9a through B-9i will reduce impacts to sensitive wildlife species and habitat to a less than significant level.

Reference. Section D.2 provides a complete assessment of the biological resources impacts of the Project.

Impact B-10: The Proposed Project would result in adverse effects to Jurisdictional Waters and Wetlands

As discussed in Section D.2 of the EIR/EIS, although a formal jurisdictional delineation was not conducted, numerous desert washes and ephemeral drainages are present in the desert portion of the Project (e.g., from Harquahala Switchyard to Midpoint Substation). The maintenance of existing access roads, construction of new access and spur roads, and installation or replacement of culverts in and adjacent to creeks and drainages could result in an alteration of the streambed, discharge of fill into drainages under the jurisdiction of the Regional Water Quality Control Board, increased sedimentation in the drainages (either directly deposited or through runoff), and/or obstruction of water flow. APMs B-7 and B-21 have been incorporated into the Project to reduce impacts to Jurisdictional Waters and Wetlands. A complete description of APMs applicable to Biological Resources is located in EIR/EIS Table D.2-6.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-10. With implementation of Mitigation Measure B-1a (under Impact B-1, above), the CPUC finds that significant Project effects to Jurisdictional Waters and Wetlands from Impact B-10 to a less than significant level.

Rationale for Finding. Preparing and implementing a Habitat Restoration/Compensation Plan, as outlined in Mitigation Measure B-1a, will compensate all Jurisdictional Waters and Wetlands potentially impacted and will reduce impacts to Jurisdictional Waters and Wetlands to a less than significant level.

Reference. Section D.2 provides a complete assessment of the biological resources impacts of the Project.

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Impact B-11: Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites

As discussed in Section D.2 of the EIR/EIS, bat nursery colonies, may be associated with the rock crevices and caves in the Chuckwalla Mountains, and the Orocopia Mountains. The construction of towers and other construction activities in and adjacent to these mountains could disrupt bat nursery colonies. Construction of the Project may also result in the temporary disturbance to breeding bighorn sheep, particularly in the Kofa NWR. Vehicle movement, equipment staging, and construction activities could temporarily disrupt breeding behavior in this species. APMs B-8 and B-16 have been incorporated into the Project to reduce impacts to wildlife movement corridors. A complete description of APMs applicable to Biological Resources is located in EIR/EIS Table D.2-6.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-11. With implementation of Mitigation Measures identified as B-9f and B-9h (under Impact B-9, above), the CPUC finds that the level of impacts will be reduced to less than significant levels. Impacts to wildlife movement or nursery sites will be reduced to less than significant levels through implementation of Mitigation Measure B-9f and impacts to bat nursery colonies will be reduced with implementation of Mitigation Measure B-9h.

Rationale for Finding. Conducting field surveys prior to construction and avoiding construction outside breeding and lambing periods will reduce impacts to wildlife corridors. The measures outlined in B-9f and B-9h will reduce impacts to wildlife corridors to a less than significant level.

Reference. Section D.2 provides a complete assessment of the biological resources impacts of the Project.

Impact B-13: Construction activities may conflict with local policies or ordinances protecting biological resources

As discussed in Section D.2 of the EIR/EIS, The Project would traverse the jurisdictions of the BLM, Riverside and San Bernardino Counties, and cities within. Plans developed by these jurisdictions were reviewed to determine if there were any biological resources policies that would apply to Project construction and operation. To reduce potential impacts related to the direct loss of individuals or a habitat for sensitive wildlife APMs B-1, B-3, B-4, B-8, B-12, B-13, B-16, B-19, B-23, B-25 through B-33, and B-36 have been incorporated into the Project. A complete description of APMs applicable to Biological Resources is located in EIR/EIS Table D.2-6. It was found that the Project and Devers-Valley No. 2 Alternative would conflict with the following plans:

- **Chuckwalla Valley Dune Thicket ACEC:** the impacts resulting from Project construction will result in significant impacts to sensitive habitat in this ACEC and will conflict with the management policies in the CDCA Plan.
- **Chuckwalla DWMA ACEC:** any permanent and temporary loss of desert tortoise habitat in this ACEC will result in significant impacts in this ACEC and will conflict with the management policies in the Plan.
- **Draft Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP):** Project construction through this proposed Conservation Area may result in temporary and permanent impacts to habitat for these species and may result in the loss of individuals of these species. This impact would conflict with the management policies in the Plan.

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- **Western Riverside County Multiple Species Habitat Conservation Plan – The Pass Area Plan:** Project construction (along the Devers-Valley No. 2 route) in the San Geronio River/San Bernardino–San Jacinto Mountains Linkage would conflict with the provisions of the Western Riverside MSHCP.

Finding. The CPUC finds that Mitigation Measures B-7b through B-7d, B-9f, and B-9i discussed under Impacts B-7 and B-9 (above), and B-13a and B-13b (included below) will reduce these impacts a less than significant level.

B-13a Demonstrate compliance with the Western Riverside County MSHCP. SCE shall provide documentation that it has complied with the provisions of the MSHCP.

B-13b Implement the Best Management Practices required by the Western Riverside County MSHCP. SCE shall provide documentation that it has implemented the Best Management Practices set forth in Appendix C of the Western Riverside MSHCP.

Rationale for Finding. By demonstrating compliance and implementing BMP's within the Western Riverside County MSHCP, and implementing applicable APMs and Mitigation Measures, all potential conflicts with local plans and policies would be identified, and the Project will comply with applicable plans.

Reference. Section D.2 provides a complete assessment of the biological resources impacts of the Project. See Appendix 2 (Policy Screening Report) of the EIR/EIS for a complete discussion of the Project's consistency with applicable biological resources policies.

Impact B-15: Operation of the transmission line may result in collisions by listed bird species

As discussed in Section D.2 of the EIR/EIS, The operation of the Project may result in mortality of listed or sensitive bird species and is a significant impact. This impact was found to be consistent for all Project and alternative route segments studied.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-15. The CPUC finds that implementation of the mitigation measure below will mitigate significant effects related to bird collisions from Impact B-15 to a less than significant level. This measure is identified as B-15a below.

B-15a Utilize collision-reducing techniques in installation of transmission lines. SCE shall install the transmission line utilizing APLIC standards for collision-reducing techniques as outlined in "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994 (APLIC, 1996)."

- Placement of towers and lines will not be located significantly above existing transmission line towers and lines, topographic features, or tree lines to the maximum extent practicable.
- Overhead lines that occur significantly above the above-mentioned features and that are located in highly utilized avian flight paths will be marked utilizing aerial marker spheres, swinging plates, spiral vibration dampers, bird flight diverters, avifauna spirals, or other diversion device as to be visible to birds and reduce avian collisions with lines.

Rationale for Finding. By using APLIC Standard collision-reducing techniques, as outlined in Mitigation Measure B-15a, impacts to listed bird species will be reduced to a less than significant level.

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Reference. Section D.2 provides a complete assessment of the biological resources impacts of the Project.

Impact B-16: Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers

As discussed in Section D.2 of the EIR/EIS, the operation of the Project will result in an increase in the number of towers, resulting in an increase in potential nesting sites for common ravens. Common ravens are known to nest on transmission towers and they are also known to be opportunistic and will prey upon wildlife species in the vicinity of perching and nesting sites. An increase in predation on the desert tortoise and other species by ravens nesting in the transmission towers is considered a significant impact. This impact was found to be consistent for all Project alternative route segments studied.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-16. The CPUC finds that the Mitigation Measure below will mitigate significant effects related to bird collisions from Impact B-16 to a less than significant level. This measure is identified as B-16a below.

B-16a Prepare and implement a raven control plan. SCE shall prepare a common raven control plan that identifies the purpose of conducting raven control, provides training in how to identify raven nests and how to determine whether a nest belongs to a raven or a raptor species, describes the seasonal limitations on disturbing nesting raptors species (excluding ravens), describes the procedure for obtaining a permit from the USFWS's Division of Migratory Birds, and describes procedures for documenting the activities on an annual basis. SCE shall gain approval of the plan from the USFWS's Division of Migratory Birds. SCE shall provide this raven control plan to all transmission line companies that conduct operations within the ROW.

Rationale for Finding. By implementing a raven control plan, as outlined in Mitigation Measure B-16a, impacts related to an increase in hunting by ravens will be reduced to a less than significant level.

Reference. Section D.2 provides a complete assessment of the biological resources impacts of the Project.

Impact B-18: The Project would result in disturbance to Management Indicator Species

As discussed in Section D.2 of the EIR/EIS, construction and operation of the Project within the Devers-Valley No. 2 Alternative on NFS lands segments in the SBNF could potentially impact one Management Indicator Species, the Song Sparrow. In addition, project activities in the SBNF area could cause impacts to the California Black Oak and White Fir.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-18. In addition to the previously identified Mitigation Measure B-5a (under Impact B-5, above), the mitigation measure identified as B-18 (below) will reduce significant effects to Management Indicator Species from Impact B-18 to a less than significant level.

B-18a No Activities in Riparian Conservation Areas. The final project design will include protective measures that prohibit construction activities on NFS lands in Riparian Conservation Areas in compliance with the Forest Plan. Examples of activities that will NOT be allowed include ground

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disturbance, adding potable water to these areas while implementing erosion control measures, and removing water from the waterways.

Rationale for Finding. By prohibiting construction activities within Riparian Conservation Areas within NFS lands will avoid impacts to Management Indicator Species. Implementation of the measure outlined in B-18a will reduce impacts to Management Indicator Species.

Reference. Section D.2 provides a complete assessment of the biological resources impacts of the Project.

V.2.2 Visual Resources

To assess impacts to Visual Resources two different methodologies were used depending on how the land was administered. For federal lands administered by the US Department of Interior Bureau of Land Management (BLM), the BLM's Visual Resource Management (VRM) system was used. For other federal (non-BLM), non-federal public and private lands the Visual Sensitivity-Visual Change system was used.

The study area for the visual resources analysis was defined by the numerous viewpoints from which the Project will be seen. The viewshed is extensive given the relative openness of much of the landscape, the height of the structures, and the availability of viewing opportunities from travel routes, recreational use areas, and nearby residential and commercial areas.

Impact V-2: Long-term visibility of land scars in arid and semi-arid landscapes

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting in arid and semi-arid environments where vegetation recruitment and growth is slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. APMs (B-14, B-19, B-30, B-23-25, W-9, W-17, G-10, G-11, G-19, V-4, L-1 and L-3) have been incorporated into the Project to reduce the number of new access roads, loss or damage to vegetation, and to restore disturbed areas.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant effects on the environment from Impact V-2. In addition, the CPUC finds that by requiring Mitigation Measures V-2a, V-2b, and V-2c scarring impacts that affect visual resources will be reduced to a less than significant level. These measures are identified below.

- V-2a Reduce in-line views of land scars.** Construct access or spur roads at appropriate angles from the originating, primary travel facilities to minimize extended, in-line views of newly graded terrain. Contour grading should be used where possible to better blend graded surfaces with existing terrain. SCE shall submit final construction plans demonstrating compliance with this measure to the BLM and CPUC for review and approval at least 60 days prior to the start of construction.
- V-2b Reduce visual contrast from unnatural vegetation lines.** In those areas where views of land scars are unavoidable, the boundaries of disturbed areas should be aggressively revegetated to create a less distinct and more natural-appearing line to reduce visual contrast. Furthermore, all graded roads and areas not required for on-going operation, maintenance, or access shall be returned to pre-construction conditions. This measure partially encompasses BLM permit require-

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ment BLM B-6.9. SCE shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC for review and approval at least 60 days prior to the start of construction.

- V-2c Reduce color contrast of land scars.** In those areas where views of land scars from sensitive public viewing locations are unavoidable, disturbed soils shall be treated with Eonite or similar treatments to reduce the visual contrast created by the lighter-colored disturbed soils with the darker vegetated surroundings. SCE will consult with the Authorized Officer on a site-by-site basis for the use of Eonite. This measure partially encompasses BLM permit requirement BLM B-6.4. SCE shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC for review and approval at least 60 days prior to the start of construction.

Rationale for Finding. The APMs, incorporated as part of the Project, will minimize ground disturbance and the number of new access roads; minimize loss or damage to vegetation; and restore and recontour disturbed areas. The mitigation measures require additional actions to reduce in-line view of scars and the visual and color contrast associated with scarring. These measures will reduce the visibility of construction scars, limit the activities that contribute to scarring, and will therefore reduce the visual impacts associated with construction to a less than significant level.

Reference. Section D.3.6.1 (Visual Resources) of the EIR/EIS provides a complete assessment of the scarring impacts of the Project.

Impact V-35: Increased structure contrast, industrial character, view blockage, and skylining when viewing the Harquahala Junction Switchyard Alternative site from Key Viewpoint 29 on Salome Highway

The placement of a 500 kV switchyard immediately adjacent to Salome Highway will introduce substantial industrial character, visual contrast and view blockage into views from Salome Highway. The resulting visual contrast will be moderate-to-high and the switchyard will appear co-dominant with the existing landscape features. View blockage will be moderate.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-35 to a less than significant level. In addition, the CPUC finds that by requiring Mitigation Measures V-6a, V-6b, V-6c, and V-35 visual impacts will be reduced to a less than significant level. These measures are identified below.

- V-6a Reduce visual contrast associated with ancillary facilities.** SCE shall submit to BLM and CPUC a Surface Treatment Plan describing the application of colors and textures to all facility structures, buildings, walls, fences, and components comprising all ancillary facilities including substations/switchyards, series capacitor banks, and optical repeater stations. The Surface Treatment Plan must reduce glare and minimize visual intrusion and contrast by blending the facilities with the landscape. The Treatment Plan shall be submitted to BLM and CPUC for approval at least 90 days prior to (a) ordering the first structures that are to be color treated during manufacture, or (b) construction of any of the ancillary facility component, whichever comes first. If the BLM or CPUC notifies SCE that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SCE

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shall prepare and submit for review and approval a revised Plan. The Surface Treatment Plan shall include:

- Specification, and 11"x17" color simulations at life size scale, of the treatment proposed for use on project structures, including structures treated during manufacture
- A list of each major project structure, building, tower and/or pole, and fencing specifying the color(s) and finish proposed for each (colors must be identified by name and by vendor brand or a universal designation)
- Two sets of brochures and/or color chips for each proposed color
- A detailed schedule for completion of the treatment
- A procedure to ensure proper treatment maintenance for the life of the project.

SCE shall not specify to the vendors the treatment of any buildings or structures treated during manufacture, or perform the final treatment on any buildings or structures treated onsite, until SCE receives notification of approval of the Treatment Plan by the BLM and CPUC. Within 30 days following the start of commercial operation, SCE shall notify the BLM and CPUC that all buildings and structures are ready for inspection.

V-6b Screen ancillary facilities. For the Harquahala Junction Switchyard Alternative, SCE shall provide a Screening Plan for screening vegetation, walls, and fences that reduces visibility and helps the facility blend in with the landscape. The use of berms to facilitate project screening may also be incorporated into the Plan. SCE shall submit the Plan to the BLM for review and approval at least 90 days prior to installing the landscape screening. If the BLM notifies SCE that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SCE shall prepare and submit for review and approval a revised Plan. The plan shall include but not necessarily be limited to:

- An 11"x17" color simulation of the proposed landscaping at 5 years
- A plan view to scale depicting the project and the location of screening elements
- A detailed list of any plants to be used; their size and age at planting; the expected time to maturity, and the expected height at five years and at maturity.

SCE shall complete installation of the screening prior to the start of project operation. SCE shall notify the BLM within seven days after completing installation of the screening, that the screening components are ready for inspection.

V-6c Reduce night lighting impacts. SCE shall design and install all permanent lighting such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized. SCE shall submit a Lighting Mitigation Plan to the BLM and CPUC for review and approval at least 90 days prior to ordering any permanent exterior lighting fixtures or components. SCE shall not order any exterior lighting fixtures or components until the Lighting Mitigation Plan is approved by the BLM and CPUC. The Plan shall include but is not necessarily limited to the following:

- Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is mini-

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mized. The design of the lighting shall be such that the luminescence or light sources is shielded to prevent light trespass outside the project boundary

- All lighting shall be of minimum necessary brightness consistent with worker safety
- High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.

V-35a Screen alternative switchyard site from Salome Highway views. This measure is required to augment and not replace Mitigation Measure V-6b in order to provide more detailed direction pertaining to the planting of roadside screening vegetation along Salome Highway. Screening vegetation shall be planted along the east side of Salome Highway between mile markers 39 and 40. Vegetation shall be comprised of native species and shall be selected to achieve heights and screen effectiveness comparable to that shown in Figure D.3-30B (see enclosed CD). SCE shall submit a Screening Plan demonstrating compliance with this measure to the BLM for review and approval at least 90 days prior to installing the landscape screening. If the BLM notifies SCE that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SCE shall prepare and submit for review and approval a revised Plan. The Screening Plan shall include but not necessarily be limited to:

- An 11"x17" color simulation of the proposed landscaping at 5 years
- A plan view to scale depicting the project and the location of screening elements
- A detailed list of any plants to be used; their size and age at planting; the expected time to maturity, and the expected height at five years and at maturity

SCE shall complete installation of the screening prior to the start of project operation. SCE shall notify the CPUC within seven days after completing installation of the screening, that the screening components are ready for inspection.

Rationale for Finding. The visual contrast will be moderate-to-high and the switchyard will appear co-dominant with the existing landscape features. View blockage will be moderate. The mitigation measures will require screening of ancillary facilities and the switchyard, reduction of night lighting, and a plan for surface treatment of the ancillary facilities to reduce glare and minimize visual intrusion and contrast. These measures require plan approval prior to construction to ensure that the regulatory agencies agree with the approach to meeting these mitigation measures prior to the start of construction. Because impacts have been identified as moderate, mitigation measures will effectively reduce the level of impacts associated with the switchyard to a less than significant level.

Reference. Section D.3.8.3 (Harquahala Junction Switchyard Alternative) of the EIR/EIS provides a complete assessment of the visual impacts to this segment of the route.

V.2.3 Land Use

To gather information regarding the effects of the Project on local and regional land uses, the CPUC and BLM contacted representatives from each of the affected jurisdictions in addition to collecting field data. The field data identified existing and sensitive land uses along the route. Sensitive land uses are defined as land uses that are susceptible to disturbances resulting from either construction or operation of a project (e.g., noise, traffic, dust, etc.) (see Section D.4.6 of the EIR/EIS) In general, residences, educational

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institutions, recreational facilities, and public facilities (e.g., religious facilities, health care facilities) are considered to be sensitive land uses for purposes of the EIR/EIS. Land uses identified in the analysis include those that are located immediately adjacent to the Project, that will be affected by construction and operation activities, or that have national, regional, or local significance and are within one mile of the route (see Section D.4.2 of the EIR/EIS).

Impact L-1: Construction Would Temporarily Disturb the Land Uses it Traverses or Adjacent Land Uses

As discussed in Section D.4 of the EIR/EIS, the increased construction activity along the entire Project route will temporarily disrupt existing land uses. The construction of the Project will bring traffic and construction noise from heavy construction equipment on temporary and permanent access roads, moving building materials to the tower sites and returning to construction staging areas. The Project will have the potential to impact residences, recreational land uses (parks, wilderness areas), open space, public facilities (schools, memorial parks), and retail and commercial businesses. The Project will also cross the CAP Canal and the I-10 as well as areas managed by resources agencies such as the Kofa National Wildlife Refuge.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact L-1. In addition, the CPUC finds that by requiring Mitigation Measures L-1a, L-1b, L-1c, L-1d, and L-1e land use impacts will be reduced to a less than significant level. These measures are identified below.

L-1a Prepare Construction Notification Plan. Forty-five days prior to construction, SCE shall prepare and submit a Construction Notification Plan to the CPUC and the BLM for approval. The Plan shall identify the procedures to ensure that SCE will inform property and business owners of the location and duration of construction, identify approvals that are needed prior to posting or publication of construction notices, and include template copies of public notices and advertisements (i.e., formatted text). To ensure effective notification of construction activities, the plan shall address at a minimum the following components:

- **Public Notice Mailer.** Fifteen days prior to construction, a public notice mailer shall be prepared. The notice shall identify construction activities that would restrict, block, or require a detour to access existing residential properties, retail and commercial businesses, wilderness and recreation facilities, and public facilities (e.g., schools and memorial parks). The notice shall state the type of construction activities that will be conducted, and the location and duration of construction. SCE shall mail the notice to all residents or property owners within 300 feet of the right-of-way and to specific public agencies with facilities that could be impacted by construction. If construction delays of more than seven days occur, an additional notice shall be prepared and distributed.
- **Newspaper Advertisements.** Fifteen days prior to construction, within a route segment, one round of newspaper advertisements shall be placed in local newspapers and bulletins. The advertisement shall state when and where construction will occur and provide information on the public liaison person and hotline identified below. If construction is delayed as noted above, an additional round of newspaper ads shall be placed to discuss the status and schedule of construction.

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- **Public Venue Notices.** Thirty days prior to construction, notice of construction shall be posted at public venues such as trail crossings, rest stops, desert centers, resource management offices (e.g., Bureau of Land Management field offices, San Bernardino National Forest Ranger Station), and other public venues to inform residents and visitors to the purpose and schedule of construction activities. For public trail closures, SCE shall post information on the trail detour at applicable resource management offices and post the notice within two miles north and south of the detour. For recreation facilities, the notice shall be posted along the access routes to known recreational destinations that would be restricted, blocked, or detoured and shall provide information on alternative recreation areas that may be used during the closure of these facilities.
 - **Public Liaison Person and Toll-Free Information Hotline.** SCE shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring property owners about noise, dust, and other construction disturbance. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public. SCE shall also establish a toll-free telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures for handling and responding to calls shall be addressed in the Construction Notification Plan.
- L-1b Coordinate with the Central Arizona Project regarding canal crossings.** Prior to construction, SCE shall coordinate with the Central Arizona Water Conservation District and the BLM Phoenix Field Office, and shall obtain a license from the Central Arizona Water Conservation District for the areas where the project crosses the Central Arizona Project Canal. SCE shall submit the approved license to the CPUC and the BLM 30 days prior to the start of construction activities. The license or license attachments must identify specific locations where the crossings are permitted and any conditions of approval that have been agreed to by SCE, the Central Arizona Water Conservation District, and the BLM Phoenix Field Office.
- L-1c Provide proof of resolution of land acquisition issues for crossing of Agua Caliente Band of Cahuilla Indians tribal lands.** SCE shall negotiate in good faith to reach a mutually acceptable agreement with the allottee. If an agreement is reached, SCE shall consult and coordinate with the Planning Department of the Agua Caliente to provide the information and/or fees requested by the Planning Department regarding land use matters. If SCE and the allottee reach an agreement then SCE shall notify the Planning Department of the Agua Caliente, and if SCE and the Planning Department agree on the legal requirements, including appropriate waivers, SCE shall notify the BLM and the CPUC of the agreement; however if SCE and the Planning department are unable to reach an agreement, SCE shall notify the CPUC of the inability to reach agreement and the CPUC may hold a hearing within thirty days of notification. SCE reserves the right to institute eminent domain proceedings. SCE believes that a conditional use permit is not required.
- L-1d Coordinate with affected business owners.** Where private parking lots serving businesses would be blocked or partially blocked during construction, SCE shall either make prior arrangements with the business owner(s) to provide alternative parking within a reasonable walking distance (i.e., no more than 1,000 feet), or shall coordinate with affected business owners to arrange the construction schedule to ensure that the functions of the business(es) are not disrupted. Thirty

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days prior to construction, SCE shall submit documentation to the CPUC and the BLM that outlines the course of action that was taken to reduce impacts to businesses near construction areas.

L-1e Coordinate construction schedule with public and community facilities. SCE shall coordinate with the public and community facilities and services listed below regarding the construction schedule and duration in order to minimize impacts to these land uses. The purpose of this measure is to work with sensitive land uses that would be impacted by construction and to identify construction times/periods that would have the least impact to peak use of these public and community facilities. This coordination could result in limiting or avoiding construction during school sessions, identifying hauling routes that do not conflict with school commute routes, or working with the memorial parks to address funeral procession routes and noise sensitivities. Thirty days prior to construction, SCE shall document its coordination efforts including contact persons, information provided, and comments received, and submit this documentation to the CPUC and BLM.

- Schools near the project route: Beaumont Middle School and High School, Calvary Christian School, Chavez Elementary School, Terrace View Elementary School, public elementary school on East Canyon Vista Drive
- San Geronio Memorial Park
- Desert Lawn Memorial Park
- Banning Municipal Airport
- Grandview Baptist Church

Rationale for Finding. Most construction impacts will be addressed by compliance with visual, noise, traffic, air quality, and other environmental mitigation measures as noted above. Notification regarding construction activities and a procedure for responding to construction complaints or questions will further reduce land use impacts along the Project route. Mitigation Measure L-1a (Prepare Construction Notification Plan) is a comprehensive mitigation measure that ensures adequate notification of construction activities and requires a contact person in case residents or landowners have questions or concerns regarding the construction activities. The contact person is especially important as a forum for the public and business owners to voice concerns during the construction process. If issues are raised, then the notification and response process allows for construction nuisances to be addressed. The measures also require coordination of the construction schedule to reduce disruptions to businesses and public facilities along the route to a less than significant level.

Reference. Section D.4 provides a complete assessment of the construction land use impacts of the Project.

Impact L-2: Operation Would Result in Permanent Preclusion of Land Uses It Traverses or Adjacent Land Uses

As discussed in Section D.4 of the EIR/EIS, the transmission line will cross the CAP Canal in two locations, and will parallel the canal at a distance ranging from approximately 2 miles north in some areas to 300 feet south in other areas. The Project has the potential to impact the CAP Canal during maintenance of the transmission line and will impact the maintenance of the canal. To minimize potential land use and other conflicts with operation of the CAP Canal, SCE must coordinate with the Central Arizona Water Conservation District and obtain a license.

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Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact L-2. Specifically, Mitigation Measure L-1b identified above will reduce Impact L-2 to a less than significant level.

Rationale for Finding. Requiring SCE to obtain a license from the Central Arizona Water Conservation District and the BLM (Phoenix Office) will ensure that the project is implemented in a way that least impacts canal operations. In addition, the measure requires that the license be submitted to the CPUC and the BLM 30-days prior to the start of construction. This submittal schedule will ensure that coordination has taken place with these agencies and the project's crossing of the canal.

Reference. Section D.4 provides a complete assessment of the operational land use impacts of the Project.

Cumulative project activities could impact land uses along Project route

New residential and commercial/industrial developments have been proposed or are under construction within two miles of the Project. Some of these new development projects would be traversed by the Project (e.g., Paradise Valley, Noble Creek, and South Hills Open Space Plan). It is likely that construction of some of these projects would overlap with construction of the Project. The construction of multiple projects within the same area would create a significant cumulative construction impact to adjacent residential land uses. Commercial land uses will be cumulatively impacted if access to these businesses was precluded during construction activities.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative land use effects on the environment from cumulative impacts. The CPUC further finds that by implementing Mitigation Measures L-1a, L-1d, and L-1e, cumulative impacts will be reduced to less than significant..

Rationale for Finding. Construction of the Project will likely occur between the years 2007 to 2009 for the Devers-Harquahala 500 kV line segment and the Devers-Valley No. 2 Alternative. No definitive construction schedule is currently available for the proposed residential and commercial/industrial projects listed in Table F-1 of the EIR/EIS. It is likely that construction of some of these projects would overlap with construction of the Project. The construction of multiple projects within the same area would create significant cumulative construction impact to adjacent residential, commercial, public facilities, and other land uses.

Reference. Section F.3.3 (Land Use) of the EIR/EIS provides a complete assessment of the cumulative land use impacts of the Project.

V.2.4 Wilderness and Recreation

The Project will be located within or pass adjacent to recreation and Wilderness Areas (WAs) under the jurisdiction of the BLM, USFWS, U.S. Department of Agriculture (USDA) Forest Service, National Park Service, State of California, Riverside County, and several cities. In order to gather information regarding the effects of the Project on WAs and recreational facilities, the CPUC and BLM contacted representatives from each of the affected jurisdictions. Field data were also collected June 2005, September 2005, and February 2006 to identify recreation and WAs within one mile of the Project route. Additional recreation and WAs located greater than one mile were identified in the EIREIS for orientation purposes only in the environmental setting sections, but were not considered in impact assessment.

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Impact WR-1: Construction activities would temporarily reduce access and visitation to recreation or wilderness areas

Project construction activities will require the use of roads that serve as primary access to the Big Horn Mountains WA, Harquahala Mountains WA, Harquahala Peak Pack Trail, and Smithsonian Observatory. No information regarding the number of annual visitors to Harquahala Peak and the WAs is readily available. However, visitors will access these resources via I-10, frontage roads (i.e., Eagle Eye Road, Palomas-Harquahala Road), and the Harquahala Peak Pack Trail. Harquahala Peak Road (the only road with vehicular access to the Peak) is a very rough, narrow, road that requires the use of 4-wheel drive vehicles. This 10.5-mile road consists of steep, rugged sections, and has a series of switchbacks near the top. Use of the laydown area and access roads for construction activities associated with the telecommunications facility at Harquahala Peak will preclude access for visitors to the WAs and to the recreational facilities at Harquahala Peak.

Project construction activities create a number of temporary nuisances that will diminish the value of the Kofa NWR, Indio Hills Palms State Park, Coachella Valley Preserve, ACECs (Chuckwalla, Alligator Rock, Coachella Valley Fringe-Toed Lizard, Potrero), Santa Rosa and San Jacinto National Monument, San Bernardino National Forest, Pacific Crest Trail, and San Jacinto WA. For example, the noise, dust, and construction traffic generated during construction activities negatively affect a visitor's enjoyment of the recreation area. Recreationists may be less likely to visit this resource during project construction.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact WR-1. The CPUC further finds that Mitigation Measure WR-1a, listed below, and C1-g listed in the Cultural Resources section, impacts will be reduced to less than significant.

WR-1a Coordinate construction schedule and activities with the authorized officer for the recreation area. No less than 40 days prior to construction, SCE shall coordinate construction activities and the project construction schedule with the authorized officer of the recreation areas listed below. SCE shall schedule construction activities to avoid heavy recreational use periods, including major holidays, in coordination with, and at the discretion of the authorized officer. SCE shall locate construction equipment to avoid temporary preclusion of recreation areas per the recommendations of the authorized officer. SCE shall also prepare a public notice of construction activities consistent with Mitigation Measure L-1a (Prepare Construction Notification Plan). SCE shall document its coordination efforts with the authorized officer, and provide this documentation to the CPUC and the BLM 30 days prior to construction.

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| <ul style="list-style-type: none"> • Big Horn Mountains Wilderness Area • Harquahala Mountains Wilderness Area • Harquahala Peak • Eagletail Mountains Wilderness Area • San Jacinto Wilderness Area • Kofa National Wildlife Refuge • Santa Rosa & San Jacinto Mountains National Monument • San Bernardino National Forest • Pacific Crest National Scenic Trail • Chuckwalla Valley Dune Thicket Area of Critical Environmental Concern • Alligator Rock Area of Critical Environmental Concern | <ul style="list-style-type: none"> • Coachella Valley Preserve and Coachella Valley Fringe-Toed Lizard Area of Critical Environmental Concern • Potrero Area of Critical Environmental Concern • BLM off-highway vehicle trails in Shavers Valley • Indio Hills Palms State Park • Norton Younglove Reserve • Noble Creek Park • Hulda Crooks Park • Oak Valley Golf Club • City of Loma Linda riding and hiking trail system • San Timoteo State Park |
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Rationale for Finding. The temporary closure of facilities and roads for construction activities will preclude use of recreational resources during construction. Mitigation measures will require coordination of the construction schedule and activities with the authorized officer for the recreation area, minimize impacts to recreationists during peak periods, and ensure that recreational users are informed of scheduled construction activities. In addition, Mitigation Measure C-1g will ensure SCE's extensive consultation with the BLM Phoenix Area Office to define and implement the most effective actions to reduce impacts of the telecommunications tower at Harquahala Peak.

Reference. Section D.5.6 (Wilderness and Recreation) of the EIR/EIS provides a complete assessment of the Wilderness and Recreation impacts of the Project.

Impact WR-3: Operation would permanently preclude recreational activities

The Project will be located adjacent to an existing 500 kV transmission line across the Kofa NWR, Indio Hills Palms State Park, Coachella Valley Preserve, ACECs (Chuckwalla, Alligator Rock, Coachella Valley Fringe-Toed Lizard, Potrero), Santa Rosa and San Jacinto National Monument, San Bernardino National Forest, Pacific Crest Trail, and San Jacinto WA. As the Project will be constructed across a recreation area, impacts will occur to recreational resources located adjacent to the ROW. For example, hiking trails that pass under or along the ROW will be impacted if a new transmission tower were erected on the trail. The construction of new spur roads will also affect recreational resources (e.g., trails, campgrounds) that are traversed by or located adjacent to the Project. As such, the siting of new transmission towers or spur roads will permanently impact existing recreational resources within the refuge and the ACECs.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact WR-3. The CPUC also finds that implementation of Mitigation Measure WR-3a, included below, impacts will be reduced to less than significant.

WR-3a Coordinate tower and road locations with the authorized officer for the recreation area.

Where the proposed route crosses the recreation areas listed below, SCE shall coordinate with the authorized officer to determine specific tower site and spur road locations in order to minimize impacts to recreational resources. This coordination shall occur no less than 30 days prior to the start of construction. SCE shall document its coordination with the authorized officer and shall submit this documentation to the CPUC and the BLM prior to initiating project construction.

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| <ul style="list-style-type: none"> • Kofa National Wildlife Refuge • Santa Rosa & San Jacinto Mountains National Monument • San Bernardino National Forest • Pacific Crest National Scenic Trail • San Jacinto Wilderness Area | <ul style="list-style-type: none"> • Chuckwalla Valley Dune Thicket ACEC • Alligator Rock ACEC • Coachella Valley Preserve and Coachella Valley Fringe-Toed Lizard ACEC • Potrero ACEC • Norton Younglove Reserve |
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Rationale for Finding. Impacts to existing recreational resources resulting from siting new towers or roads on or near these resources will preclude recreational and wilderness activities. Mitigation Measure WR-3a requires coordination of tower and road locations with the authorized officer for the recreation area. This will ensure that construction activities are carried out to limit disturbance to recreational and wilderness uses.

Reference. Section D.5.6 (Wilderness and Recreation) of the EIR/EIS provides a complete assessment of the Wilderness and Recreation impacts of the Project.

V.2.5 Agriculture

The CPUC and BLM analyzed effects of the Project on agricultural resources using data collected from California Department of Conservation (DOC) and the Natural Resources Conservation Service (NRCS). Agricultural resources that exist along the project route include land designated as important farmland, other agricultural operations, and lands under Williamson Act contracts. For the purposes of the analysis in the EIR/EIS, important farmland is classified as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland, which are collectively referred to as "Farmland", as well as Farmland of Local Importance, and Grazing Land. Additionally, other agricultural operations include active agricultural lands along the Project route that have not been classified as Farmland. Williamson Act lands are important agricultural lands that are voluntarily enrolled in the Williamson Act program, which only exists in California, and restricts land use in exchange for preferential property taxes.

Impact AG-1: Construction Activities Will Temporarily Convert Farmland to Non-Agricultural Use

As discussed in Section D.6 (Agriculture) of the EIR/EIS, construction activities along the Project route will impact Farmland due to the presence and disturbance caused by use of heavy construction equipment, building materials, and workers. The resulting disturbances will temporarily convert approximately 60 acres of Farmland to non-agricultural uses (i.e., construction areas and disturbed lands) where towers are erected, pulling and splicing stations are located, and access roads are built. This impact is significant because the conversion of 60 acres is greater than the threshold set to determine the significance of the conversion of Farmland.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact AG-1 to a less than significant level. This measure is identified as Mitigation Measure AG-1, and is included below.

AG-1a Establish agreement and coordinate construction activities with agricultural landowners. Sixty (60) days prior to the start of project construction, Southern California Edison (SCE) shall secure a signed agreement with property owners of Farmland (Prime Farmland, Farmland of Statewide Importance, Unique Farmland) and Williamson Act lands that will be used for construction and operation of the project, access and spur roads, staging areas, and other project-related activities. The purpose of this agreement will be to set forth the use of Prime Farmland, Farmland of Statewide Importance,

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Unique Farmland, and Williamson Act lands during construction in order to: (1) schedule proposed construction activities at a location and time when damage to agricultural operations will be minimized, and (2) ensure that any areas damaged or disturbed by construction are restored to a condition mutually agreed upon by the landowner and SCE.

SCE shall coordinate with the agricultural landowners in the affected areas where Farmland or Williamson Act land will be temporarily disturbed in order to determine when and where construction should occur in order to minimize damage to agricultural operations. This includes avoiding construction during peak planting, growing, and harvest seasons. If damage or destruction does occur, SCE shall perform restoration activities on the disturbed area in order to return the area to a pre-determined condition or the pre-construction condition, whichever option is agreed upon by the landowner and SCE. This could include activities such as soil preparation, regarding, and reseeding. This measure applies to agricultural landowners with land that is impacted by the Project. SCE shall provide proof of the continued use of Farmland and/or Williamson Act lands through the submittal of a signed agreement between an individual property owner and SCE. The signed agreements shall be submitted to the CPUC and BLM for review and approval prior to the start of construction.

Rationale for Finding. Requiring SCE to establish an agreement with agricultural landowners prior to construction will ensure that the least amount of Farmland is temporarily converted to non-agricultural uses, and that any land that is disturbed is restored to a mutually agreed upon condition. Coordination with landowners will allow landowners to convey specific details about their agricultural operations, including type of crop, maintenance requirements, seasonal obligations such as planting or harvesting times, and other appropriate information. Knowledge of each agricultural operation will allow SCE to schedule construction activities so as to minimize damage by avoiding crops by performing construction after harvest season, in a location that is fallow, or during times that will avoid peak growing season. If temporary disturbance does occur, SCE will restore the disturbed area to an agriculturally usable condition (i.e., pre-construction or other condition) agreed upon by the landowner.

Reference. Section D.6 of the EIR/EIS provides a complete assessment of the temporary conversion of Farmland to non-agricultural uses due to the Project.

Impact AG-2: Construction Activities Will Interfere with Agricultural Operations

As discussed in Section D.6 of the EIR/EIS, construction activities and the presence of construction equipment could interfere with agricultural operations by damaging crops or soil, impeding access to certain fields or plots of land, obstructing farm vehicles, or disrupting drainage and irrigation systems. These events could further result in the temporary reduction of agricultural productivity.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact AG-2. Mitigation Measures L-1a identified above in Section IV.2.3, and AG-1a, listed above under Impact AG-1, will reduce Impact AG-2 to a less than significant level.

Rationale for Finding. Most construction impacts to agricultural operations on Farmland will be addressed through Mitigation Measure AG-1a, which requires SCE to coordinate the Project construction activities with agricultural landowners in order to minimize disturbance to agricultural land and interference with

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agricultural operations. If disturbance does occur to Farmland, SCE will restore the land to a condition jointly agreed upon by SCE and the landowner. In addition, Mitigation Measure L-1a will provide notification of construction activities and a procedure for responding to construction complaints or questions to landowners in all areas where construction will occur. This provides landowners sufficient notice of upcoming construction activities so that they can make appropriate preparations to their property. Additionally, this measure provides a mechanism to resolve construction-related complaints.

Reference. Section D.6 of the EIR/EIS provides a complete assessment of the impacts to agricultural operations caused by construction of the Project.

Impact AG-4: Operation Will Interfere with Agricultural Operations

As discussed in Section D.6 of the EIR/EIS, the operation of the Project, including the presence of new access or spur roads and new tower structures, could divide farm properties creating an obstacle to farming that impedes access to certain fields or plots, and creates irregularly shaped fields in which it will be difficult to maneuver farm equipment. New roadways could also disrupt drainage and irrigation systems, affect the efficacy of windbreaks, fragment farms, and allow for the introduction of invasive weeds within and around disturbed areas. These interferences could permanently decrease agricultural productivity in the area.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact AG-4. Mitigation Measure AG-4a, listed below, will reduce Impact AG-4 to a less than significant level.

AG-4a Locate transmission towers and pulling/splicing stations to avoid agricultural operations. SCE shall site transmission towers and pulling/splicing stations in locations that minimize impacts to active agricultural operations. Specifically, SCE shall comply with the following measures when siting transmission towers and splicing/pulling stations within areas where active cultivated farmland will be removed through the presence of structures:

- SCE shall avoid orchards, vineyards, row crops, and furrow-irrigated crops where towers will interfere with irrigation and harvest activities.
- SCE shall avoid irrigation canals and ditches.
- SCE shall align towers adjacent to field boundaries and parallel to rows (if located in row crops), and shall avoid diagonal orientations and angular alignments within agricultural land.
- SCE shall match tower spans with existing DPV1 towers within agricultural land.
- SCE shall construct towers with heights and spacing to minimize safety hazards to aerial applicators flying in the Palo Verde Valley (CA) and other agricultural areas.
- SCE shall consult with the Palo Verde Irrigation District (PVID) regarding tower placement to minimize disruption to PVID facilities.

SCE shall document and provide proof of compliance with the above listed items 90 days prior to the start of Project construction. This documentation shall be submitted to the CPUC and the BLM for review and approval prior to the start of construction, and reviewed with affected land-

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owners during coordination presented in Mitigation Measure AG-1a (Establish agreement and coordinate construction activities with agricultural landowners).

Rationale for Finding. Most operational impacts to agricultural operations from the Project will be caused by the placement of structures in locations that will not allow existing farming practices, including the use of specialized equipment, to continue in their current manner. Therefore, implementation of Mitigation Measure AG-4a will reduce Impact AG-4 to a less than significant level by requiring SCE to adhere to certain factors when determining the final location of Project structures within agricultural areas. Some of these factors include avoiding orchards, vineyards, row crops, and furrow-irrigated crops due to the density of crops and use of special maintenance equipment. Other factors require SCE to consider existing agriculture-related practices, such as field boundaries, crop alignments, and aerial applicators; and structures, such as irrigation facilities, canals, and ditches, in their final tower locations. Proof of SCE's compliance with this measure will be documented and provided to the CPUC and BLM.

Reference. Section D.6 of the EIR/EIS provides a complete assessment of the impacts to agricultural operations caused by operation of the Project.

Impact AG-5: Construction Activities Will Conflict with a Williamson Act Contract

As discussed in Section D.6 of the EIR/EIS, construction of the Project will occur over 2.4 miles of land under Williamson Act contracts within the Palo Verde Valley in Riverside County, California. These construction activities will temporarily disturb 11.8 acres of Prime (Williamson Act) Agricultural Land. Performing construction activities on lands under Williamson Act contracts will conflict with the objective of each contract, which is to preserve important agricultural land.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact AG-5. Mitigation Measures AG-1a, identified above under Impact AG-1, will reduce Impact AG-5 to a less than significant level.

Rationale for Finding. Requiring SCE to establish an agreement with agricultural landowners prior to construction will ensure that landowners have been consulted and construction activities will create the least amount of disturbance to Williamson Act lands. Coordination with landowners will allow a mutually agreeable construction schedule, which minimizes disturbance, to be developed. If temporary disturbance does occur, SCE will restore the disturbed area to an agriculturally usable condition (i.e., pre-construction or other condition) agreed upon by the landowner.

Reference. Section D.6 of the EIR/EIS provides a complete assessment of the impacts to Williamson Act contracts caused by construction of the Project.

V.2.6 Cultural and Paleontological Resources

As discussed in Section D.7 (Cultural and Paleontological Resources) of the EIR/EIS, record searches were conducted consisting of a review of relevant historic maps, excavation and survey reports, and paleontological data. Abundant cultural and paleontological resources data for the Project were available in archival facilities and in existing reports as a result of previous studies conducted for the adjacent DPV1 Project. Supplemental field surveys were conducted in order to verify the location of any previously identified cultural resources and to cover previously unsurveyed lands within Areas of Potential Effect (APE), which are defined as all acreage that will be affected by new project development

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and areas of temporary construction activity. For the purposes of the analysis in the EIR/EIS and based on NEPA and CEQA requirements, cultural resources are defined as places or objects that are important for historical, scientific, and religious reasons and are of concern to cultures, communities, groups, or individuals. These resources may include buildings and architectural remains, archaeological sites and other artifacts that provide evidence of past human activity, human remains, or a traditional cultural property (TCP). Paleontologic resources are a limited, nonrenewable, very sensitive scientific and educational resource and, in California, are afforded protection under federal and State of California environmental legislation.

Impact C-1: Construction of the project could cause an adverse change to known historic properties

As discussed in Section D.7 of the EIR/EIS, any ground-disturbing activity, including tower pad preparation and construction, grading of new access or spur roads, reconductoring activity, tower removal, transportation, storage, and maintenance of construction equipment and supplies, staging area and material yard preparation and use, and use or improvement of existing access roads has the potential to disturb known cultural resources. Impacts could also result from inadvertent trespass out of designated work areas or roads. Adverse effects to individual sites cannot be precisely identified for all project areas until the final tower locations are defined, specific tower locations are determined, detailed engineering plans for all project roads and facilities are completed, and final National Register of Historic Places (NRHP)-eligibility of cultural resources has been assessed. The APEs for these activities have not been determined, thus planning for these activities must account for the sites recommended as eligible.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact C-1 to a less than significant level. These measures identified as C-1a through C-1g are included below.

C-1a Inventory and evaluate cultural resources in Final APE. Prior to construction and all other surface disturbing activities, the Applicant shall have conducted and submitted for approval by the BLM and CPUC (and the USFS, on San Bernardino National Forest land and the THPO on Agua Caliente land) an inventory of cultural resources within the project's final Area of Potential Effect. The nature and extent of this inventory shall be determined by the BLM and CPUC in consultation with the appropriate State Historic Preservation Officer (SHPO) and shall be based upon project engineering specifications. Results of this inventory shall also be filed with appropriate State repositories and local governments. As part of the inventory, the Applicant shall conduct field surveys of sufficient nature and extent to identify cultural resources that will be affected by tower pad construction, reconductoring activities, access road installation, and transmission line construction and operation. At a minimum, field surveys shall be conducted along newly proposed access roads, new construction yards, new tower sites, and any other projected areas of potential ground disturbance outside of the previously surveyed potential impact areas. Site-specific field surveys also shall be undertaken at all projected areas of impact within the previously surveyed corridor that coincide with previously recorded resource locations. The selected right-of-way and tower locations shall be staked prior to the cultural resource field surveys. As part of the inventory report, the Applicant shall evaluate the significance of all affected cultural resources on the basis of surface observations and provide recommendations with regard to their eligibility for the National Register of Historic Places (NRHP) or local registers. Preliminary determinations of NRHP eligibility will be made by the BLM, in consultation with the CPUC and appropriate local governments, the USFS (on USFS land), and the appropriate SHPO or THPO.

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- C-1b Avoid and protect potentially significant resources.** On the basis of preliminary National Register of Historic Places (NRHP) eligibility assessments (Mitigation Measure C-1a) the BLM and CPUC may require the relocation of the line, ancillary facilities, or temporary facilities or work areas, if any, where relocation will avoid or reduce damage to cultural resource values. Where operationally feasible, potentially NRHP-eligible resources shall be protected from direct project impacts by project redesign.

Where the BLM and CPUC decide that potentially NRHP-eligible cultural resources cannot be protected from direct impacts by project redesign, the Applicant shall undertake additional studies to evaluate the resources' NRHP-eligibility and to recommend further mitigative treatment. The nature and extent of this evaluation shall be determined by the BLM in consultation with the CPUC and the appropriate State Historic Preservation Officer (SHPO) and shall be based on final project engineering specifications. Evaluations will be based on surface remains, subsurface testing, archival and ethnographic resources, and in the framework of the historic context and important research questions of the project area. Results of those evaluation studies and recommendations for mitigation of project effects shall be incorporated into a Historic Properties Treatment Plan consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan).

All potentially NRHP-eligible resources (as determined by the BLM and CPUC) that will not be affected by direct impacts, but are within 50 feet of direct impact areas will be designated as Environmentally Sensitive Areas (ESAs). Protective fencing, or other markers, at the BLM's discretion, shall be erected and maintained to protect ESAs from inadvertent trespass for the duration of construction in the vicinity. Construction personnel and equipment shall be instructed on how to avoid ESAs. ESAs shall not be identified specifically as cultural resources. A monitoring program shall be developed as part of the Historic Properties Treatment Plan and implemented by the Applicant to ensure the effectiveness of ESAs.

- C-1c Develop and implement Historic Properties Treatment Plan.** Upon approval of the inventory report and the National Register of Historic Places (NRHP)-eligibility evaluations by the BLM and CPUC, consistent with Mitigation Measures C-1a (Inventory and evaluate cultural resources in Final APE) and C-1b (Avoid and protect potentially significant resources), the Applicant shall prepare and submit for approval a Historic Properties Treatment Plan (HPTP) for NRHP-eligible cultural resources to mitigate or avoid identified impacts. Treatment of cultural resources shall follow the procedures established by the Advisory Council on Historic Preservation for compliance with Section 106 of the National Historic Preservation Act and other appropriate State and local regulations. Avoidance, recordation, and data recovery will be used as mitigation alternatives. The HPTP shall be submitted to the BLM and CPUC for review and approval.

As part of the HPTP, the Applicant shall prepare a research design and a scope of work for evaluation of cultural resources and for data recovery or additional treatment of NRHP-eligible sites that cannot be avoided. Data recovery on most resources will consist of sample excavation and/or surface artifact collection, and site documentation. A possible exception will be a site where burials, cremations, or sacred features are discovered that cannot be avoided.

The HPTP shall define and map all known NRHP-eligible properties in or within 50 feet of all project APEs and shall identify the cultural values that contribute to their NRHP-eligibility. A cultural resources protection plan shall be included that details how NRHP-eligible properties will be avoided

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and protected during construction. Measures shall include, at a minimum, designation and marking of Environmentally Sensitive Areas (ESAs), archaeological monitoring, personnel training, and effectiveness reporting. The plan shall detail: what measures will be used; how, when, and where they will be implemented; and how protective measures and enforcement will be coordinated with construction personnel.

The HPTP shall also define any additional areas that are considered to be of high-sensitivity for discovery of buried NRHP-eligible cultural resources, including burials, cremations, or sacred features. The HPTP shall detail provisions for monitoring construction in these high-sensitivity areas. It shall also detail procedures for halting construction, making appropriate notifications to agencies, officials, and Native Americans, and assessing NRHP-eligibility in the event that unknown cultural resources are discovered during construction. For all unanticipated cultural resource discoveries, the HPTP shall detail the methods, the consultation procedures, and the timelines for assessing NRHP-eligibility, formulating a mitigation plan, and implementing treatment. Mitigation and treatment plans for unanticipated discoveries shall be approved by the BLM and CPUC, appropriate local governments, appropriate Native Americans, and the appropriate State Historic Preservation Officer prior to implementation.

The HPTP shall include provisions for analysis of data in a regional context, reporting of results within one year of completion of field studies, curation of artifacts (except from private land) and data (maps, field notes, archival materials, recordings, reports, photographs, and analysts' data) at a facility that is approved by BLM, and dissemination of reports to local and State repositories, libraries, and interested professionals. The BLM will retain ownership of artifacts collected from BLM managed lands. The Applicant shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections. The HPTP shall specify that archaeologists and other discipline specialists conducting the studies meet the Secretary of the Interior's Standards (per 36 CFR 61).

C-1d Conduct data recovery to reduce adverse effects. If National Register of Historic Places (NRHP)-eligible resources, as determined by the BLM and SHPO, cannot be protected from direct impacts of the Project, data-recovery investigations shall be conducted by the Applicant to reduce adverse effects to the characteristics of each property that contribute to its NRHP-eligibility. For sites eligible under Criterion d, significant data will be recovered through excavation and analysis. For properties eligible under Criteria a, b, or c, data recovery may include historical documentation, photography, collection of oral histories, architectural or engineering documentation, preparation of a scholarly work, or some form of public awareness or interpretation. Data gathered during the evaluation phase studies and the research design element of the Historic Properties Treatment Plan (HPTP) shall guide plans and data thresholds for data recovery; treatment will be based on the resource's research potential beyond that realized during resource recordation and evaluation studies. If data recovery is necessary, sampling for data-recovery excavations will follow standard statistical sampling methods, but sampling will be confined, as much as possible, to the direct impact area. Data-recovery methods, sample sizes, and procedures shall be detailed in the HPTP consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan) and implemented by the Applicant only after approval by the BLM and CPUC. Following any field investigations required for data recovery, the Applicant shall document the field studies and findings, including an assessment of whether adequate data were recovered to reduce adverse project effects, in a brief field closure report. The field closure report shall be submitted to the BLM and CPUC for their review and approval, as well as to appropriate State repositories and local

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governments. Construction work within 100 feet of cultural resources that require data-recovery fieldwork shall not begin until authorized by the BLM or CPUC, as appropriate.

- C-1e Monitor construction.** The Applicant shall implement archaeological monitoring by a professional archaeologist during subsurface construction disturbance at all locations identified in the Historic Properties Treatment Plan (HPTP). Full-time monitoring shall occur when ground-disturbing activities take place at all archaeological High-Sensitivity Areas described above and at all cultural resource Environmentally Sensitive Areas (ESAs). These locations and their protection boundaries shall be defined and mapped in the HPTP. Intermittent monitoring may occur in areas of moderate archaeological sensitivity at the discretion of the BLM and CPUC. Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historical and prehistoric resources that could be encountered within the project, and under direct supervision of a principal archaeologist. The qualifications of the principal archaeologist and archaeological monitors shall be approved by the BLM and CPUC. A Native American monitor may be required at culturally sensitive locations specified by the BLM following government-to-government consultation with Native American tribes. The monitoring plan in the HPTP shall indicate the locations where Native American monitors will be required and shall specify the tribal affiliation of the required Native American monitor for each location. The Applicant shall retain and schedule any required Native American monitors.

Compliance with and effectiveness of the cultural resources monitoring plan shall be documented by the Applicant in a monthly report to be submitted to the BLM and CPUC, and, on San Bernardino National Forest, to the USFS, and on Agua Caliente land to the THPO, for the duration of project construction. In the event that cultural resources are not properly protected by ESAs, all project work in the immediate vicinity shall be diverted by the archaeological monitor until authorization to resume work has been granted by the BLM and CPUC. The Applicant shall notify the BLM of any damage to cultural resource ESAs. The Applicant shall consult with the BLM and CPUC to mitigate damages and to increase effectiveness of ESAs. At the discretion of the BLM and CPUC, such mitigation may include, but not be limited to modification of protective measures, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection.

- C-1f Train construction personnel.** All construction personnel shall be trained regarding the recognition of possible buried cultural remains and protection of all cultural resources, including prehistoric and historic resources during construction, prior to the initiation of construction or ground-disturbing activities. The Applicant shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American burials. Training shall inform all construction personnel that Environmentally Sensitive Areas (ESAs) must be avoided and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of artifacts or other cultural materials on or off the right-of-way by the Applicant, his representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate State and federal laws and violations will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction:

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- All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits, their responsibility to avoid and protect all cultural resources, and the penalties for collection, vandalism, or inadvertent destruction of cultural resources.
- The Applicant shall provide a background briefing for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential ESA, and procedures and notifications required in the event of discoveries by project personnel or archaeological monitors. Supervisors shall also be briefed on the consequences of intentional or inadvertent damage to cultural resources. Supervisory personnel shall enforce restrictions on collection or disturbance of artifacts or other cultural resources.
- Upon discovery of potential buried cultural materials by archaeologists or construction personnel, or damage to an ESA, work in the immediate area of the find shall be diverted and the Applicant's archaeologist notified. Once the find has been inspected and a preliminary assessment made, the Applicant's archaeologist will consult with the BLM or CPUC, as appropriate, to make the necessary plans for evaluation and treatment of the find(s) or mitigation of adverse effects to ESAs.

C-1g Minimize impacts at Harquahala Peak. SCE shall consult with BLM's Phoenix Area Office to define and implement the most effective actions to reduce impacts of the proposed telecommunications tower at Harquahala Peak on cultural, visual, and recreational resources. Options for consideration shall include the following:

- SCE shall work with BLM to evaluate and analyze different locations for the communications facility, and shall document each site as to its adequacy for SCE's needs. If a different site (or sites) appears to be feasible and acceptable to BLM, SCE shall complete biological and cultural resources surveys and provide reports to BLM.
- SCE shall design and finish the tower for the proposed new facility to emulate the existing facilities. In addition, the location of the proposed new tower shall be relocated to the place determined by BLM to minimize effects on the interpretive site.
- SCE shall provide visitor facilities or enhanced historic interpretive information in order to better convey to the public the scientific contributions that the Observatory has made to history, and which make it worthy of NRHP listing under Criterion a.
- SCE shall consult with CAP and BLM to develop a co-located communications facility requiring only one tower to serve both parties.
- Based on consultation with BLM, SCE shall relocate the laydown area to a site that minimizes effects on visitors to Harquahala Peak.

After consultation with BLM on the options defined above, SCE shall submit a revised description of the Harquahala Peak facilities and laydown area along with detailed construction plans for review and approval by BLM's Phoenix Area Office at least 60 days prior to the start of construction.

Rationale for Finding. Direct impacts may be avoided through minor design modifications and Project effects will be reduced to a less than significant level by the avoidance and protection activities listed in the mitigation measures above; this is the preferred treatment for all cultural resources. Once final design is

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completed and APE locations have been determined, additional surveys and evaluations must occur as discussed in Mitigation Measure C-1a (Inventory and evaluate cultural resources in Final APE). Using cultural resource studies conducted for this project, as well as past studies, known locations of cultural resources recommended as NRHP-eligible have been determined and should attempt to be avoided by project redesign and engineering modifications as described in Mitigation Measure C-1b (Avoid and protect potentially significant resources). If cultural resources are identified through additional surveys or construction activities, then Mitigation Measures C-1c (Develop and implement Historic Properties Treatment Plan), C-1d (Conduct data recovery to reduce adverse effects), C-1e (Monitor construction), and C-1f (Train construction personnel), are required to be implemented by the SCE to ensure discovery, evaluation, and treatment of unknown buried prehistoric and historical archaeological sites.

Reference. Section D.7 (Cultural Resources) of the EIR/EIS provides a complete assessment of the construction-related impacts of the Project on cultural resources.

Impact C-3: Construction of the project could cause an adverse change to Traditional Cultural Properties (TCP)

As discussed in Section D.7 of the EIR/EIS, any ground-disturbing activity, including tower pad preparation and construction, grading of new access or spur roads, reconductoring activity, tower removal, transportation, storage, and maintenance of construction equipment and supplies, staging area and material yard preparation and use, and use or improvement of existing access roads has the potential to disturb known cultural resources such as TCPs. Impacts could also result from inadvertent trespass out of designated work areas or roads. To date, no TCPs have been identified for the Project. However, there is the possibility of encountering unknown TCPs. Therefore, TCPs will be significantly impacted by the Project if not mitigated to a less than significant level.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact C-3. Specifically, Mitigation Measure C-1c identified above and Mitigation Measure C-3a included below will reduce Impact C-3 to a less than significant level.

C-3a Complete consultation with Native American and other Traditional Groups. The Applicant shall provide assistance to the BLM, as requested by the BLM, to complete required government-to-government consultation with interested Native American tribes and individuals (Executive Memorandum of April 29, 1994 and Section 106 of the National Historic Preservation Act) and other Traditional Groups to assess the impact of the Project on Traditional Cultural Properties or other resources of Native American concern. As directed by the BLM, the Applicant shall undertake required treatments, studies, or other actions that result from such consultation. Written documentation of the completion of all pre-construction actions shall be submitted by the Applicant and approved by the BLM at least 30 days before commencement of construction activities. Actions that are required during or after construction shall be defined, detailed, and scheduled in the Historic Properties Treatment Plan and implemented by the Applicant, consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan).

Rationale for Finding. The BLM, as the Federal Lead Agency under NEPA has only recently initiated required government-to-government consultation with appropriate Native American groups and notification to other public groups regarding project effects on traditional cultural values. Mitigation Measure C-3a ensures

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that consultation with Native American and other Traditional Groups are conducted and completed, and that if TCPs or other Native American resources of concern are discovered a Historic Properties Treatment Plan is required to be prepared and implemented.

Reference. Section D.7 (Cultural Resources) of the EIR/EIS provides a complete assessment of the Project impacts on traditional cultural properties.

Impact C-4: Construction of the project could destroy or disturb significant paleontological resources

As shown in Table D.7-7 of Section D.7 (Cultural and Paleontological Resources), paleontological resources within the Project corridor vary in sensitivity from low to high. Paleontologically sensitive resources could be impacted by Project construction. In addition, there is potential to encounter undiscovered paleontological resources during Project construction.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact C-4. These measures are identified as C-4a, C-4b, C-4c, C-4d, and C-4e (included below) will reduce Impact C-4 to less than significant.

- C-4a Inventory paleontological resources in Final APE.** Prior to construction and all other surface-disturbing activities, the Applicant shall have conducted and submitted for approval an inventory of potentially significant paleontological resources, based on field inspection of areas of high or undetermined paleontological sensitivity that will be affected by the project as determined by the BLM and CPUC. As part of the inventory report, the Applicant shall evaluate and refine the paleontological sensitivity modeling of sediments that will be affected.
- C-4b Develop Paleontological Monitoring and Treatment Plan.** The Applicant shall, upon approval of the paleontological inventory report by the BLM and CPUC, prepare and submit for approval a plan to mitigate identified impacts. The Paleontological Monitoring and Treatment Plan shall identify construction impact areas of high sensitivity for encountering significant resources and the depths at which those resources are likely to be discovered. The Plan shall outline a coordination strategy to ensure that all construction disturbance in high sensitivity sediments will be monitored full-time by qualified professionals. Sediments of undetermined sensitivity will be spot-checked. The Plan shall detail the significance criteria to be used to determine which resources will be avoided or recovered for their data potential. The Plan shall also detail methods of recovery, post-excavation preparation and analysis of specimens, final curation of specimens at a federally recognized, accredited facility, data analysis, and reporting. The Plan shall specify that all paleontological work undertaken by the Applicant on public land shall be carried out by qualified professionals on a currently valid Paleontological Collecting Permit for the appropriate State. Notices to proceed will be issued by the BLM and CPUC following approval of the Paleontological Monitoring and Treatment Plan.
- C-4c Monitor construction for paleontology.** Based on the paleontological sensitivity assessment and Monitoring and Treatment Plan consistent with Mitigation Measure C-4b (Develop Paleontological Monitoring and Treatment Plan), the Applicant shall conduct full-time construction monitoring in areas where and when sediments of high paleontological sensitivity will be disturbed. Construction activities shall be diverted when data recovery of significant fossils is warranted.

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C-4d Conduct paleontological data recovery. If avoidance of significant paleontological resources is not feasible or appropriate, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the Applicant, in accordance with the approved Treatment Plan per Mitigation Measure C-4b (Develop Paleontological Monitoring and Treatment Plan).

C-4e Train construction personnel. All construction personnel shall be trained regarding the recognition of possible buried paleontological resources and protection of all paleontological resources during construction, prior to the initiation of construction or ground-disturbing activities. The Applicant shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological materials. Training shall inform all construction personnel that Environmentally Sensitive Areas (ESAs) must be avoided and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of federally protected fossils on or off the right-of-way by the Applicant, his representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate State and federal laws and will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction:

- All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried paleontological deposits, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources.
- The Applicant shall provide a background briefing for supervisory construction personnel describing the potential for exposing paleontological resources, the location of any potential ESA, and procedures and notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils.
- Upon discovery of potential buried paleontological materials by paleontologists or construction personnel, work in the immediate area of the find shall be diverted and the Applicant's paleontologist notified. Once the find has been inspected and a preliminary assessment made, the Applicant's paleontologist will notify the BLM and CPUC and proceed with data recovery in accordance with the approved Treatment Plan consistent with Mitigation Measure C-4b (Develop Paleontological Monitoring and Treatment Plan).

Rationale for Finding. The mitigation measures require inventory of paleontological resources once a final APE has been established to ensure that paleontological resources are avoided to the greatest extent feasible. However, additional measures allow provisions for the discovery and treatment of significant fossil remains in the event that they are encountered during construction, and will reduce project effects to paleontological resources.

Reference. Section D.7 (Cultural Paleontological Resources) of the EIR/EIS provides a complete assessment of Project impacts on paleontological resources.

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Impact C-5: Operation and long-term presence of the project could cause an adverse change to known historic properties

Direct and indirect impacts may occur to historic properties within and in the vicinity of the project area during operation and long-term presence of the Project from Impact C-5. Direct impacts could result from maintenance or repair activities, while increased erosion could result as an indirect project impact.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment. Impacts are significant, but can be mitigated to a level that is less than significant by implementing site protection measures and monitoring procedures, as detailed in Mitigation Measure C-2 a and C-5a below, in addition to C-3a, above.

C-2a Consult agencies and Native Americans. If human remains are discovered during construction, all work will be diverted from the area of the discovery and the BLM authorized officer will be informed immediately. The Applicant shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains. The Applicant shall assist and support the BLM in all required government-to-government consultations with Native Americans and appropriate agencies and commissions, as requested by the BLM. The Applicant shall comply with and implement all required actions and studies that result from such consultations, as directed by the BLM.

C-5a Protect and monitor NRHP-eligible properties. The Applicant shall design and implement a long-term plan to protect National Register of Historic Places (NRHP)-eligible sites from direct impacts of project operation and maintenance and from indirect impacts, such as erosion that result from the presence of the project. The plan shall be developed in consultation with the BLM to design measures that will be effective against project maintenance impacts and project-related vehicular impacts. The plan shall also include protective measures for NRHP-eligible properties within the DPV corridor that will experience operational and access impacts as a result of the Proposed Project. The proposed measures may include restrictive fencing or gates, permanent access road closures, signage, stabilization of erosion, site capping, site patrols, and interpretive/educational programs, or other measures that will be effective for protecting NRHP-eligible properties. The plan shall be property specific and shall include provisions for monitoring and reporting its effectiveness and for addressing inadequacies or failures that result in damage to NRHP-eligible properties. The plan shall be submitted to the BLM and CPUC for review and approval at least 30 days prior to project operation.

Monitoring of selected sites shall be conducted annually by a professional archaeologist for a period of five years. Monitoring shall include inspection of all site loci and defined surface features, documented by photographs from fixed photomonitoring stations and written observations. A monitoring report shall be submitted to the BLM and CPUC within one month following the annual resource monitoring. The report shall indicate any properties that have been impacted by erosion or vehicle or maintenance impacts. For properties that have been impacted, the Applicant shall provide recommendations for mitigating impacts and for improving protective measures. After the fifth year of resource monitoring, the BLM or CPUC, as appropriate, will evaluate the effectiveness of the protective measures and the monitoring program. Based on that evaluation, the BLM or CPUC may require that the Applicant revise or refine the protective measures, or alter the monitoring protocol or schedule. If the BLM does not authorize alteration of the monitoring protocol or schedule, those shall remain in effect for the duration of project operation.

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If the annual monitoring program identifies adverse effects to National Register of Historic Places (NRHP)-eligible properties from operation or long-term presence of the project, or if, at any time, the Applicant, BLM or CPUC become aware of such adverse effects, the Applicant shall notify the BLM and CPUC immediately and implement mitigation for adverse changes, as directed by the BLM and CPUC. At the discretion of the BLM and CPUC, such mitigation may include, but not be limited to modification of protective measures, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection.

Rationale for Finding. Consultation with Native American groups requires SCE to ensure discovery, evaluation, and treatment of unknown buried prehistoric and historical archaeological sites and buried Native American human remains. By requiring SCE to protect and monitor NRHP-eligible properties, ensures that the CPUC and BLM have the option of modifying protective measures during Project operation, refining the monitoring protocols, requiring data-recovery investigations, or requiring the payment of compensatory damages in the form of non-destructive cultural resources studies or protection.

Reference. Section D.7 (Cultural and Paleontological Resources) of the EIR/EIS provides a complete assessment of the operational impacts of the Project on cultural resources.

Cumulative construction project activities could impact unknown cultural and paleontological resources

As described in Table F-1 of Section F (Cumulative Scenario and Impacts) of the EIR/EIS, there are approximately 85 projects in the planning or construction phases within a 5-mile-wide corridor surrounding the Project that have the potential to adversely affect cultural and paleontological resources. However, no cultural resource sites are known to exist within the geographic scope for cumulative analysis. Typically, cultural and paleontological resources are identified as part of the permitting process for individual undertakings, and often are discovered only during ground disturbing activities. Applicable laws and regulations afford specific protections to discovered resources. Unknown, unrecorded cultural or paleontological resources may be found at nearly any development site. Therefore, there is a potential for significant cumulative impacts. APMs C-1 through C-11, P-1, B-3, B-17, W-1, W-3, W-9, G-10, G-11, and L-3 have been incorporated into the Project to reduce Project effects on cultural and paleontological resources.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects of the Project. With implementation of Mitigation Measures C-1a through C-1g, C-2a, C-3a, C-4a through C-4e, and C-5a, cumulative effects on cultural and paleontological resources will be reduced to a less than significant level.

Rationale for Finding. As they are discovered, cultural sites are recorded and information retrieved. If the nature of the resource requires it, the resource is protected. When discovered, cultural and paleontological resources are treated in accordance with applicable federal and State laws and regulations as well as the mitigation measures and permit requirements applicable to a project. Should resources be discovered they will be subject to legal requirements designed to protect them.

Reference. Section F (Cumulative Scenario and Impacts) of the EIR/EIS provides a complete assessment of the cumulative impacts of the Project on cultural and paleontological resources.

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V.2.7 Noise

To gather information regarding the noise effects of the Project, applicable noise regulations were collected for each affected jurisdiction. In addition, field surveys were done to identify noise-sensitive receptors along the Project route. Noise-sensitive land uses are defined as land uses that are susceptible to noise disturbances resulting from either construction or operation of the Project. In general, residential, educational institutions, recreational facilities, and public facilities (e.g., religious facilities, health care facilities) are considered to be noise-sensitive receptors for purposes of the EIR/EIS. Sensitive receptors identified in the analysis include those that are located immediately adjacent to the Project route that will be affected by construction and operation activities. For the purposes of the analysis in the EIR/EIS and based on NEPA and CEQA requirements, noise impacts are those that exceed local noise regulations for construction noise and any area where operational noise would increase ambient noise conditions more than 3 dBA to a sensitive receptor.

Impact N-1: Construction noise could substantially disturb sensitive receptors or violate local rules, standards, and/or ordinances

As discussed in Section D.8 (Noise) of the EIR/EIS, noise generated by both on-site and mobile construction activities along the entire Project route will temporarily disrupt existing receptors. The construction of the Project will bring traffic and construction noise from heavy construction equipment on temporary and permanent access roads, moving building materials to the tower sites and returning to construction staging areas. This noise will have the potential to impact residences, recreational land uses (parks, wilderness areas), public facilities (schools, memorial parks), and retail and commercial businesses.

Finding. The CPUC finds that Best Management Practices utilized during construction and incorporated into the Project will mitigate significant noise effects on the environment from Impact N-1 to a less than significant level. This measure is identified as N-1a below.

N-1a Implement best management practices for construction noise. SCE shall employ the following noise-suppression techniques to minimize the impact of temporary construction noise and avoid possible violations of local rules, standards, and ordinances:

- Construction noise shall be confined to daytime, weekday hours (e.g., 7:00 a.m. to 6:00 p.m.) or an alternative schedule established by the local jurisdiction;
- Construction equipment shall use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer;
- Construction traffic shall be routed away from residences and schools, where feasible;
- Unnecessary construction vehicle use and idling time shall be minimized to the extent feasible. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. A "common sense" approach to vehicle use shall be applied; if a vehicle is not required for use immediately or continuously for construction activities, its engine should be shut off. (Note: certain equipment, such as large diesel-powered vehicles, require extended idling for warm-up and repetitive construction tasks.)

Rationale for Finding. Most construction impacts will be addressed by limiting construction hours consistent with local jurisdiction noise ordinances, the use of muffling devices on construction equipment (where applicable), construction vehicle routes avoiding sensitive noise receptors (where feasible), and con-

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struction vehicles shutting off engine power to avoid long idling times near receptors. As construction activities are considered short-term and temporary in nature, by instigating the measures outlined in N-1a, construction noise impacts will be reduced.

Reference. Section D.8 (Noise) provides a complete assessment of the construction noise impacts of the Project.

Cumulative construction noise could result in a temporary or permanent increase in ambient noise levels or violate local noise rules, standards, and/or ordinances

As discussed in Section F of the EIR/EIS, there is the possibility that a variety of projects will occur at the same time as project construction. Some will occur within one-quarter mile of project-related construction activities. In the areas where project construction may occur simultaneously with other development, the combined effects of noise generated by the Project and other development will impact sensitive receptors cumulatively.

Finding. The CPUC finds that Best Management Practices utilized during construction and incorporated into the Project will mitigate cumulative noise effects on the environment from to a less than significant level. This measures is identified as N-1a above under the discussion for Impact N-1.

Rationale for Finding. Project specific noise impacts will be addressed by limiting construction hours consistent with local jurisdiction noise ordinances, the use of muffling devices on construction equipment (where applicable), construction vehicle routes avoiding sensitive noise receptors (where feasible), and construction vehicles shutting off engine power to avoid long idling times near receptors. Mitigation Measure N-1a will limit the noise impacts of the Project, and the limited likelihood of project noise impacts occurring simultaneously with other construction will ensure that project construction noise is not cumulatively considerable and less than significant.

Reference. Section F (Cumulative Scenario and Impacts) provides a complete assessment of the cumulative construction noise impacts of the Project.

V.2.8 Transportation and Traffic

To gather information regarding the traffic and transportation effects of the Project, applicable traffic regulations were collected for each affected jurisdiction, including those identified in jurisdictional General Plans and those outlined by the applicable Department of Transportations. In addition, data for the transportation network were collected and analyzed from the following sources: highway maps; route alignment maps obtained from SCE; and other maps from various reports and websites from the affected State and local agencies. Traffic volume data were obtained from agency websites and reports. Lane information was obtained from aerial photographs and field reconnaissance. A complete list of these sources is available in Section D.9, Transportation & Traffic, of the EIR/EIS.

For the purposes of the analysis in the EIR/EIS and based on NEPA and CEQA requirements, transmission line project impacts to the ground transportation system (roads and railroads) during construction could occur during installation of towers and the stringing of conductors, as these activities would interface with the public roadway system at numerous locations along the Project route. In addition, aviation impacts could occur should a project structure, crane, or wires be positioned such that it could adversely affect aviation activities.

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Impact T-7: Construction vehicles and equipment will potentially cause physical damage to roads in the project area

As discussed in Section D.9 (Transportation and Traffic) of the EIR/EIS, the use of heavy trucks and other equipment used during construction activities for the project could potentially cause physical damage and/or deterioration of the surface on the roadways that will provide access to the Project alignment.

Finding. The CPUC finds that repairing any damaged roadways or roadway features as a result of construction activities will mitigate significant traffic impacts related to physical roadway damage to the environment from Impact T-7 to a less than significant level. This activity is incorporated into the Project as Mitigation Measure T-7a below.

T-7a Repair roadways damaged by construction activities. If roadways, sidewalks, medians, curbs, shoulders, or other such features are damaged by the project's construction activities, as determined by the CPUC Environmental Monitor or the affected public agency, SCE shall coordinate repairs with the affected public agencies and ensure that any such damage is repaired to the pre-construction condition within 60 days from the end of all construction within each affected county.

Rationale for Finding. Most construction activities will be localized at the point of construction, however, construction vehicle use could damage existing roadways and roadway facilities, including sidewalks. During construction, CPUC Environmental Monitors will be located on-site and will report any damage to SCE requiring repair. In addition, local jurisdictions and public agencies can report any damage caused by construction-related use to SCE requiring repair. As construction activities are considered short-term and temporary in nature, by implementing the measures outlined in T-7a, construction impacts related to physical damage to roadways and facilities will be reduced to a less than significant level.

Reference. Section D.9 (Transportation and Traffic) provides a complete assessment of Project construction traffic impacts.

V.2.9 Public Health and Safety

The Public Health and Safety section of the EIR/EIS analyzed the effects of the Project for two issues. First, Sections D.10.6 through D.10.10 examined the potential for environmental contamination and hazardous materials as a result of the Project in Impacts P-1 through P-4. To evaluate the effects of environmental contamination and hazardous materials, the CPUC and BLM examined the existing and past land uses traversed by the project and reviewed environmental databases listing known active hazardous waste sites. Cumulative impacts were found to be the same as the Project impacts and will be reduced to be less than significant through the implementation of mitigation. Second, while not considering electric and magnetic fields in the context of CEQA and NEPA, Sections D.10.11 through D.10.12 provide information about electric and magnetic fields and other electrical field issues in Impacts PS-1 through PS-6. The examination of electric and magnetic fields and other electrical field issues was based on magnetic field computer modeling results for the length of the Project.

Impact P-1: Soil contamination could result from improper handling and/or storage of hazardous materials during construction activities

As discussed in Section D.10 of the EIR/EIS, hazardous materials such as vehicle fuels, oils, and other vehicle maintenance fluids will be used and stored in staging yards during construction. There is potential

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for incidents involving release of gasoline, diesel fuel, oil, hydraulic fluid, and lubricants from vehicles or other equipment or the release of solvents, adhesives, or cleaning chemicals from construction activities. Spills and leaks of hazardous materials during construction activities could result in soil contamination.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact P-1. These measures are identified as P-1a, P-1b, P-1c, and P-1d, and are included below.

P-1a Develop Hazardous Substance Control and Emergency Response Plan. A Hazardous Substance Control and Emergency Response Plan shall be prepared for the project, and a copy shall be kept on site (or in vehicles) during construction and maintenance of the project. SCE shall document compliance by submitting the plan to the CPUC or BLM or USFWS, as appropriate, for review and approval at least 60 days before the start of construction.

P-1b Conduct environmental training and monitoring program. An environmental training program shall be established to communicate environmental concerns and appropriate work practices, including spill prevention, emergency response measures, and proper Best Management Practice (BMP) implementation, to all field personnel prior to the start of construction. The training program shall emphasize site-specific physical conditions to improve hazard prevention (e.g., identification of potentially hazardous substances) and shall include a review of all site-specific plans, including but not limited to, the project's Storm Water Pollution Prevention Plan and the Hazardous Substances Control and Emergency Response Plan. SCE shall document compliance by (a) submitting to the CPUC or BLM or USFWS, as appropriate, for review and approval an outline of the proposed Environmental Training and Monitoring Program, and (b) maintaining for monitor review a list of names of all construction personnel who have completed the training program.

Best Management Practices, as identified in the project Storm Water Pollution Prevention Plan and the Hazardous Substances Control and Emergency Response Plan, shall be implemented during the construction of the project to minimize the risk of an accidental release and provide the necessary information for emergency response.

P-1c Ensure proper disposal of construction waste. All non-hazardous construction and demolition waste, including trash and litter, garbage, and other solid waste shall be disposed of properly. Petroleum products and other potentially hazardous materials shall be removed to a hazardous waste facility permitted or otherwise authorized to treat, store, or dispose of such materials.

P-1d Maintain emergency spill supplies and equipment. Hazardous material spill kits shall be maintained at all construction sites for small spills. This shall include oil-absorbent material, tarps, and storage drums to be used to contain and control any minor releases. Emergency spill supplies and equipment shall be kept adjacent to all work areas and staging areas, and shall be clearly marked. Detailed information for responding to accidental spills and for handling any resulting hazardous materials shall be provided in the project's Hazardous Substances Control and Emergency Response Plan.

Rationale for Finding. While SCE's Application indicated that they will prepare a Hazardous Substance Control and Emergency Response Plan to reduce impacts to soil contamination, Mitigation Measures P-1a, P-1b, P-1c, and P-1d formalize the preparation of this plan and specify procedures that will reduce the

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potential for soil contamination. Additionally, the environmental training and monitoring program described in Mitigation Measure P-1b ensures that all field personnel are aware and trained in the implementation of these procedures. Consequently, if a spill or leak of hazardous materials were to occur, personnel will be able to respond in a manner that will limit soil contamination.

Reference. Section D.10 (Public Health and Safety) of the EIR/EIS provides a complete assessment of the soil contamination impacts of the Project during construction.

Impact P-2: Residual pesticides and/or herbicides could be encountered during grading or excavation in agricultural areas

The presence of residual pesticide and herbicide contamination of the soil and/or groundwater in the agricultural areas along the route represents a potentially significant impact due to the potential health hazards associated with exposure of construction workers and the public to contaminated soil.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact P-2. This measure identified as P-2a is included below.

P-2a Identify pesticide/herbicide contamination. Soil samples shall be collected in construction areas where the land has historically or is currently being farmed to identify the possibility of and to delineate the extent of pesticide and/or herbicide contamination. Excavated materials containing elevated levels of pesticide or herbicide will require special handling and disposal procedures. Standard dust suppression procedures (as defined in Mitigation Measure AQ 1a) shall be used in construction areas to reduce airborne emissions of these contaminants and reduce the risk of exposure to workers and the public. Regulatory agencies for the states of Arizona or California (as appropriate) and the appropriate county shall be contacted to provide oversight regarding the handling, treatment, and/or disposal options.

Rationale for Finding. Although SCE identified APMs W-3 and W-11 to incorporate erosion control and hazardous material plans in the construction bidding specifications for the Project, the identification of pesticide and herbicide contamination as required in Mitigation Measure P-2a details procedures that will reduce the impacts of pesticides and/or herbicides on workers associated with the Project or the general public in the vicinity of the Project. The procedures will ensure the compliance of the Project with the appropriate agencies in Arizona and California.

Reference. Section D.10 (Public Health and Safety) of the EIR/EIS provides a complete assessment of the impacts of the Project on residual pesticides and/or herbicides.

Impact P-3: Encountering unknown preexisting contamination during excavation or grading

Previously unknown soil contamination associated with industrial contamination (e.g., solvents, hydrocarbons, heavy metals, etc.) could be encountered during grading or excavation, particularly at or near the Harquahala Generating Station switchyard.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact P-3. This measure identified as P-3a is included below.

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P-3a Observe exposed soil for evidence of contamination. During grading or excavation work, the construction contractor shall observe the exposed soil for visual evidence of contamination. If visual contamination indicators are observed during construction, the contractor shall stop work until the material is properly characterized and appropriate measures are taken to protect human health and the environment. The contractor shall comply with all local, State, and federal requirements for sampling and testing, and subsequent removal, transport, and disposal of hazardous materials. Additionally, in the event that evidence of contamination is observed, the contractor shall document the exact location of the contamination and shall immediately notify the CPUC or BLM, describing proposed actions. A weekly report listing encounters with contaminated soils and describing actions taken shall be submitted to the CPUC or BLM.

Rationale for Finding. As described above for the identification of pesticides and/or herbicides, requiring SCE to evaluate exposed soils for evidence of contamination will ensure that measures are implemented to protect the health of workers associated with the Project along with the public in the vicinity of construction activities. The submittal of weekly reports to the CPUC and BLM will also ensure the compliance of activities with local, State, and federal requirements.

Reference. Section D.10 (Public Health and Safety) of the EIR/EIS provides a complete assessment of the impacts of the Project on preexisting contamination.

Impact P-4: Soil contamination from accidental spill or release of hazardous materials during project operations and maintenance

Soil contamination could result from accidental spills or releases of hazardous materials at the Harquahala Junction Switchyard and/or the series capacitor bank during facility operations. This could potentially result in exposure of facility and maintenance workers and the public to hazardous materials.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact P-4. This measure identified as P-4a is included below.

P-4a Prepare Spill Prevention, Countermeasure, and Control Plans. To minimize, avoid, and/or clean up unforeseen spill of hazardous materials during operation of the proposed facilities, SCE shall update or prepare, if necessary, the Spill Prevention, Countermeasure, and Control plan for each substation, series capacitors, and the switchyard. SCE shall document compliance by providing a copy of the Spill Prevention, Control, and Countermeasures plans to the CPUC or BLM or USFWS, as appropriate, for review and approval at least 60 days before the start of operation.

Rationale for Finding. As described above for Impact P-1, preparation of the Spill Prevention, Countermeasure, and Control Plans formalizes the procedures necessary to limit soil contamination during an accidental spill or release, thereby protecting the health of workers and the general public. Submittal of the plans to the CPUC, BLM, or USFWS, ensures that these agencies know what is required of SCE in case of a spill or release so that they can also prepare accordingly.

Reference. Section D.10 (Public Health and Safety) of the EIR/EIS provides a complete assessment of the soil contamination impacts of the Project while in operation.

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Impact PS-1: Radio and Television Interference

Although corona can generate high frequency energy that may interfere with broadcast signals or electronic equipment, this is generally not a problem for transmission lines. Gap discharges or arcs can also be a source of high frequency energy that may interfere with broadcast signals or electronic equipment. Corona or gap discharges related to high frequency radio and television interference impacts are dependent upon several factors including the strength of broadcast signals and are anticipated to be very localized if it occurs.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact PS-1. These measures are identified as PS-1a, PS-1b, and PS-1c and are included below.

PS-1a Limit the conductor surface electric gradient. As part of the design and construction process for the Proposed Project, the Applicant shall limit the conductor surface electric gradient in accordance with the IEEE Radio Noise Design Guide

PS-1b Document and resolve electronic interference complaints. After energizing the transmission line, SCE shall respond to and document all radio/television/equipment interference complaints received and the responsive action taken. These records shall be made available to the CPUC for review upon request. All unresolved disputes shall be referred by SCE to the CPUC for resolution.

PS-1c Coordinate with Kofa NWR to prevent radio interference. Prior to construction, SCE shall coordinate with Kofa National Wildlife Refuge to determine any additional design, planning, or shielding measures that are necessary to prevent radio interference within the Refuge.

Rationale for Finding. By limiting the conductor surface electric gradient as proposed in Mitigation Measure PS-1a, SCE reduces the overall potential for television and radio interference. By recording and responding to complaints about interference, as proscribed in Mitigation Measure PS-1b, SCE can locate and correct individual sources of adverse radio/television interference impacts on the power lines or can shield or correct electronic equipment such as computer monitors can through the use of software. For Kofa NWR, where radio interference from corona or gap discharges could interfere with law enforcement and emergency communications as well as with tracking radio collared animals near the transmission lines, coordination with Kofa NWR will limit radio interference during operation of the Project.

Reference. Section D.10 (Public Health and Safety) of the EIR/EIS provides a complete assessment of the radio and television interference impacts of the Project while in operation.

Impact PS-2: Induced Currents and Shock Hazards in Joint Use Corridors

Induced currents and voltages on conducting objects near the transmission lines represent a potential significant impact that can be mitigated. These impacts do not pose a threat in the environment if the conducting objects are properly grounded.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact PS-2. This measure identified as PS-2a is included below.

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PS-2a Implement grounding measures. As part of the siting and construction process for the Proposed Project, SCE shall identify objects (such as fences, metal buildings, and pipelines) within and near the right-of-way that have the potential for induced voltages and shall implement electrical grounding of metallic objects in accordance with SCE's standards. The identification of objects shall document the threshold electric field strength and metallic object size at which grounding becomes necessary.

Rationale for Finding. Mitigation Measure PS-2a requires SCE to implement procedures to identify and properly ground objects near the Project which will prevent shock hazards to workers and the general public in the vicinity of the Project.

Reference. Section D.10 (Public Health and Safety) of the EIR/EIS provides a complete assessment of induced currents and shock hazards associated with the Project while in operation.

V.2.10 Air Quality

As discussed in Section D.11 (Air Quality) of the EIR/EIS, impacts to air quality as a result of Project construction and operation was based on federal, State, and local regulations. Local agencies have regulations for visible emissions, nuisances, and fugitive dust with which all project activities would need to comply, include the Maricopa County Air Quality Department (MCAQMD) and the South Coast Air Quality Management District (SCAQMD). The United States Environmental Protection Agency (U.S. EPA), California Air Resources Board (CARB), and the local air districts classify an area as attainment, unclassified, or nonattainment depending on whether or not the monitored ambient air quality data shows compliance, insufficient data available, or non-compliance with the ambient air quality standards, respectively. Impacts were determined based on activities associated with the Project to generate emissions of air pollutants that would exceed those thresholds identified in Section D.11, Air Quality, of the EIR/EIS. In addition, a land use survey was conducted to identify air quality sensitive receptors (e.g., local residences, schools, hospitals, churches, recreational facilities) in the general vicinity of the Project alignment. Project-generated emissions on these receptors were also analyzed.

Impact AQ-1: Construction will generate dust and exhaust emissions

As discussed in Section D.11 (Air Quality) of the EIR/EIS, dust and exhaust generated during construction will create significant impacts along the entire Project located within air basins managed by the Arizona Department of Environmental Quality (ADEQ). A relatively large construction effort will occur in La Paz County at locations far from paved roads. Daily construction emissions will be potentially significant for PM10 within the ADEQ jurisdiction. The jurisdiction of the ADEQ includes the following project components inside the ADEQ, including all of La Paz County and the following project components:

- Construction of 248 new towers and 75 miles of transmission line
- Construction of a telecommunications facility with an emergency engine on Harquahala Mountain
- Access and spur road construction and repair

In addition, the following Alternative segments will result in construction activities within the ADEQ that will result in potentially significant impacts for PM10 emissions:

- Harquahala Junction Switchyard Alternative
- Desert Southwest Transmission Project Alternative

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Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact AQ-1a to a less than significant level. Specifically, the following mitigation measures have been incorporated in the Project to address significant air quality emission increases on the environment during construction in the ADEQ jurisdiction:

AQ-1a Develop and Implement a Fugitive Dust Emission Control Plan. SCE shall develop and implement a Fugitive Dust Emission Control Plan (FDECP) for construction work. Measures to be incorporated into the plan include, but are not limited to the APMs (A-1 and A-5 through A-7) and the following, which also incorporate and revise the requirements of APMs A-2 through A-4 to make them definitive and enforceable:

- CARB certified non-toxic soil binders shall be applied to all active unpaved roadways, unpaved staging areas, and unpaved parking area(s) throughout construction (as allowed by responsible agencies such as the BLM or USFWS) in amounts meeting manufacturer's recommendations to meet the CARB certification fugitive dust reduction efficiency of 84 percent.
- Water the disturbed areas of the active construction sites, where CARB certified soil binders have not been applied, at least three times per day.
- Enclose, cover, water three times daily, or apply non-toxic soil binders according to manufacturer's specifications to exposed piles with a 5 percent or greater silt content.
- Install wheel washers/cleaners or wash the wheels of trucks and other heavy equipment where vehicles exit the site or unpaved access roads and sweep paved streets daily with water sweepers if visible soil material from the construction sites or unpaved access roads are carried onto adjacent public streets.
- Establish a vegetative ground cover or allow natural revegetation to occur on temporarily disturbed areas following the completion of construction (in compliance with biological resources impact mitigation measures), or otherwise create stabilized surfaces on all unpaved areas at each of the construction sites within 21 days after active construction operations have ceased.
- Increase the frequency of watering, or implement other additional fugitive dust mitigation measures, to all disturbed fugitive dust emission sources when wind speeds (as instantaneous wind gusts) exceed 25 miles per hour (mph).
- Travel route planning will be completed to identify required travel routes to minimize unpaved road travel to each construction site to the extent feasible.

Rationale for Finding. During construction of the Project within the ADEQ air basins, the maximum daily PM10 emissions will be dominated by the unpaved road dust emissions. As a result, use of CARB certified soil binders on unpaved roads will be necessary to reduce emissions to below the significance criteria of 250 tons per year of PM10. For the potentially significant PM10 emissions within the ADEQ, the use of Mitigation Measure AQ-1a will reduce the construction impact to a less than significant level.

Reference. Section D.11 (Air Quality) provides a complete assessment of the air quality impacts of the Project.

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V.2.11 Hydrology and Water Resources

As discussed in Section D.12 (Hydrology and Water Resources), the hydrologic and water resources analysis prepared for the Project was based on data collected from FEMA, U.S. Geologic Survey, State Water Resources Control Board, and the ADEQ, as well as from field visits to the Project route, review of aerial photographs, and review of topographic maps. Surface water crossings were identified using aerial photographs and available topographic maps. Water crossings identified are those that are readily identifiable by these means.

Impact H-2: Degradation of water quality through spill of potentially harmful materials used in construction

Accidental spills or disposal of potentially harmful materials used during construction could occur during refueling or due to equipment damage. Spilled liquids could wash into and pollute surface waters or groundwater resulting in a degradation of water quality.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact H-2 to a less than significant level. These measures are identified as P-1a, P-1b, P-1c, and P-1d, and are included above in Section IV.2.9.

Rationale for Finding. While SCE's APMs W-2 and W-3 were designed in part to reduce the potential for water quality degradation from spills and leaks during construction, Mitigation Measures P-1a, P-1b, P-1c, and P-1d formalize the preparation of a Hazardous Substance Control and Emergency Response Plan and specify procedures that will reduce the potential for soil contamination. Additionally, the environmental training and monitoring program described in Mitigation Measure P-1b ensures that all field personnel are aware and trained in the implementation of these procedures. Consequently, if a spill or leak of harmful materials were to occur, personnel will be able to respond in a manner that will limit degradation of water quality.

Reference. Section D.12 (Hydrology and Water Resources) of the EIR/EIS provides a complete assessment of the potential impacts of Project construction on water quality due to the spill of harmful materials.

Impact H-4: Water quality degradation caused by accidental releases of oil from project facilities

Oil from new electrical equipment at the Harquahala Switchyard and the Arizona series capacitor banks could be released accidentally, contaminating local surface water. Implementation of APM W-3 requires development of hazardous material plans that will minimize the potential for accidental releases to cause water quality degradation.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact H-4 to a less than significant level. This measure identified as P-4a is included above in Section IV.2.9.

Rationale for Finding. As described above for Impact H-2, preparation of the Spill Prevention, Countermeasure, and Control Plans formalizes the procedures necessary to limit soil contamination during an accidental spill or release, thereby protecting the health of workers and the general public. Submittal of the plans to the CPUC, BLM, or USFWS, ensures that these agencies know what is required of SCE in case of a spill or release so that they can also prepare accordingly.

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Reference. Section D.12 (Hydrology and Water Resources) of the EIR/EIS provides a complete assessment of the potential impacts of Project operation on water quality due to the spill of harmful materials.

Impact H-6: Encroachment into a floodplain or watercourse by permanent aboveground project features resulting in flooding, flood diversions, or erosion

Encroachment of a project structure into a water flow path could result in erosion damage to the encroaching structure. This impact will likely occur only if transmission line towers or other permanent project features are constructed in or closely adjacent to a watercourse.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact H-6 to a less than significant level. This measure identified as H-6a is included below.

H-6a Design diversion dikes or other site remediations to avoid damage to adjacent property. Where diversion dikes are required to protect towers or other project structures from flooding or erosion, these dikes shall be designed to avoid increasing the risk of erosion or flooding onto adjacent areas where life or property could be threatened. Diversion dike designs shall be submitted to the CPUC and BLM for review and approval at least 60 days prior to construction.

Rationale for Finding. SCE's APMs W-4 through W-6 were designed to avoid the adverse local effects related to floodplain encroachment by avoiding watercourses where possible, ensuring foundations are adequate to resist scour, and constructing diversion dikes in severe cases, but they could result in adverse impacts to adjacent property through diversion and concentration of flows. Requiring SCE to submit diversion dike designs to CPUC and BLM will ensure that any floodplain encroachment by project structures will be designed in such manner that adjacent areas are protected from erosion and flooding.

Reference. Section D.12 (Hydrology and Water Resources) of the EIR/EIS provides a complete assessment of the Project's encroachment into floodplains and watercourses.

V.2.12 Geology, Mineral Resources, and Soils

The CPUC and BLM examined the regional topography, geology, seismicity, soils, and mineral resources in the Project area, by collecting baseline geologic information from published and unpublished geologic, seismic, and geotechnical literature. The literature review was supplemented by a field reconnaissance of the routes studied in the EIR/EIS. The literature review and field reconnaissance focused on the identification of specific geologic hazards, mineral resources, and soil conditions.

Impact G-1: Construction could accelerate erosion

Excavation and grading for tower and switchyard foundations, series capacitor banks, work areas, access roads, and spur roads could loosen soil and accelerate erosion, particularly in desert pavement areas. Desert pavement, located in the Project segments from Harquahala to the Colorado River and from Midpoint Substation to Banning, is a unique geologic/soil feature that takes thousands to tens of thousands of years to form and protects the underlying silty and sandy soils from excessive wind and water erosion. Damage to desert pavement could result in an extreme acceleration of erosion.

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Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact G-1 to a less than significant level. This measure identified as G-1a is included below.

G-1a Protect desert pavement. Grading for new access roads or work areas in areas covered by desert pavement shall be avoided if possible. If avoidance of these areas is not possible, the desert pavement surface shall be protected from damage or disturbance from construction vehicles by use of temporary mats on the surface. A plan for identification and avoidance or protection of sensitive desert pavement shall be prepared and submitted to the CPUC, BLM, and USFWS for review and approval at least 60 days prior to start of construction.

Rationale for Finding. Implementation of SCE's APMs W-3, W-7 through W-9, W-11, G-10 through G-14, and G-19 as well as a Stormwater Pollution Prevention Plan (SWPPP) will generally limit erosion from construction activities. The APMs do not address the potential disturbance of desert pavement areas, however, and will not sufficiently reduce impacts in these areas. The plan required of SCE by the CPUC, BLM, and USFWS under Mitigation Measure G-1a will ensure that SCE will implement procedures to sufficiently protect desert pavement areas, in addition to the other protections afforded in the APMs and SWPPP.

Reference. Section G.13 (Geology, Mineral Resources, and Soils) of the EIR/EIS provides a complete assessment of the construction impacts of the Project on desert pavement.

Impact G-2: Project structures could be damaged by problematic soils

Corrosive subsurface soils which could have a detrimental effect on concrete and metals may exist in places along the Project route. Expansive soils, such as those found along the Project route, can also cause problems to structures. These soils could result in damage and/or distress of structures, eventually leading to structural failures. Loose sands and other compressible soils could also result in excessive settlement, low foundation-bearing capacity, and limitation of year-round access to Project facilities.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact G-2 to a less than significant level. This measure identified as G-2a is included below.

G-2a Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design. Design-level geotechnical studies shall be performed by the Applicant to identify the presence, if any, of potentially detrimental soil chemicals, such as chlorides and sulfates. Appropriate design measures for protection of reinforcement, concrete, and metal-structural components against corrosion shall be utilized, such as use of corrosion-resistant materials and coatings, increased thickness of project components exposed to potentially corrosive conditions, and use of passive and/or active cathodic protection systems. The geotechnical studies shall also identify areas with potentially expansive or collapsible soils and include appropriate design features, including excavation of potentially expansive or collapsible soils during construction and replacement with engineered backfill, ground-treatment processes, and redirection of surface water and drainage away from expansive foundation soils. Study results and proposed solutions shall be provided to the CPUC and BLM, as appropriate, for review and approval at least 60 days before construction.

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Rationale for Finding. SCE's application of standard design and construction practices and implementation of APMs G-9 and G-15 will reduce the adverse affects of problematic soils, but Mitigation Measure G-2a formalizes the specific procedures necessary to ensure the protection of the Project structures in a manner sanctioned by the CPUC and BLM.

Reference. Section G.13 (Geology, Mineral Resources, and Soils) of the EIR/EIS provides a complete assessment of the impacts of problematic soils on the Project.

Impact G-3: Excavation or grading during construction could cause slope instability

Construction consisting of grading and excavation along the foothills at the edge of the New Water Mountains and the San Jacinto Mountains could cause slope instability. Excavation operations associated with tower foundation construction and grading operations for temporary and permanent access roads and work areas could result in slope instability, resulting in landslides, soil creep, or debris flows which have the potential to undermine foundations, cause distortion and distress to overlying structures, and displace or destroy project components.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact G-3 to a less than significant level. This measure identified as G-3a is included below.

G-3a Conduct geotechnical surveys for landslides. The Applicant shall perform design-level geotechnical surveys in areas crossing and adjacent to hills and mountains. These surveys will acquire data that will allow identification of specific areas with the potential for unstable slopes, landslides, earth flows, and debris flows along the approved transmission line route and in other areas of ground disturbance, such as grading for access and spur roads. The investigations shall include an evaluation of subsurface conditions, identification of potential landslide hazards, and provide information for development of excavation plans and procedures. Where landslide hazard areas cannot be avoided, appropriate engineering design and construction measures shall be incorporated into the project designs to minimize potential for damage to project facilities. A report documenting these surveys and design measures to protect structures shall be submitted to the CPUC and BLM for review and approval at least 60 days before construction.

Rationale for Finding. SCE has proposed APMs G-6, G-7, G-10, and G-18 to reduce impacts related to slope instability. The APMs proposed by SCE, however, do not provide sufficient detail to ensure that their measures will adequately reduce the impacts of the Project. Requiring SCE to submit their geotechnical surveys and design measures to the CPUC and BLM will ensure that impacts will be limited to the extent authorized by the CPUC and BLM.

Reference. Section G.13 (Geology, Mineral Resources, and Soils) of the EIR/EIS provides a complete assessment of the slope instability impacts of the Project.

Impact G-4: Project structures could be damaged by landslides, earthflows, and/or debris flows

Slope instability including landslides, earth flows, and debris flows has the potential to undermine foundations, cause distortion and distress to overlying structures, and displace or destroy project components. The area where landslides will be most likely to occur is the slopes on the southern edge of the New Water Mountains and the San Jacinto Mountains.

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Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact G-4 to a less than significant level. This measure identified as G-3a is described above under Impact G-3.

Rationale for Finding. As with Impact G-3, SCE has proposed APMs G-6 and G-18 to reduce impacts related to landslide hazards during operations of the project, but these APMs do not provide sufficient detail to ensure that their measures will adequately reduce the impacts of the Project. Requiring SCE to submit their geotechnical surveys and design measures to the CPUC and BLM will ensure that impacts will be limited to the extent authorized by the CPUC and BLM.

Reference. Section G.13 (Geology, Mineral Resources, and Soils) of the EIR/EIS provides a complete assessment of the impacts of landslides on the Project.

Impact G-5: Project structures could be damaged by seismically included groundshaking and ground failure

Seismically induced ground failure caused by groundshaking, which includes liquefaction and lateral spreading, could potentially cause damage to project facilities. Liquefaction occurs in low-lying areas where saturated non-cohesive sediments are found, such as the area adjacent to the Colorado River and along portions of the Devers-Valley No. 2 Alternative. Lateral spreading occurs along waterfronts or canals where non-cohesive soils could move out along a free-face.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact G-5 to a less than significant level. This measure identified as G-5a is included below.

G-5a Design project facilities to avoid impact from ground failure. Since seismically induced ground failure has the potential to damage or destroy project components, the Applicant shall complete design-level geotechnical investigations at tower locations in areas with potential liquefaction-related impacts. These studies shall specifically assess the potential for liquefaction and lateral spreading hazards to affect the approved project and all associated facilities. Where these hazards are found to exist, appropriate engineering design and construction measures shall be incorporated into the project designs. A report documenting results of the geotechnical surveys shall be submitted to the CPUC and BLM for review and approval at least 60 days before construction.

Rationale for Finding. SCE has proposed APMs G-4 and G-17 to reduce impacts related to seismically included groundshaking. The APMs proposed by SCE, however, do not provide sufficient detail to ensure that their measures will adequately reduce the impacts of the Project. Requiring SCE to submit their geotechnical surveys to the CPUC and BLM will ensure that impacts will be limited to the extent authorized by the CPUC and BLM.

Reference. Section G.13 (Geology, Mineral Resources, and Soils) of the EIR/EIS provides a complete assessment of the impacts of groundshaking on the Project.

Impact G-6: Construction activities will render known mineral resources inaccessible

The Cactus City Rest Area to Devers Substation segment crosses an active sand and gravel quarry in the Indio Hills area called the Indio Pit operated by Granite Construction. The project route will pass through

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the site within an existing SCE ROW and will therefore not reduce accessibility to the sand and gravel resources. However, construction operations for the Project could interfere with daily ongoing mining operations at the quarry.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact G-6 to a less than significant level. This measure identified as G-6a is included below.

G-6a Coordinate with quarry operations. Operations and management personnel for the Indio Pit quarry shall be consulted regarding locations of active mining and for coordination of construction activities in and through those areas. A plan to avoid or minimize interference with mining operations shall be prepared in conjunction with mine/quarry operators prior to construction. SCE shall document compliance with this measure prior to the start of construction by submitting the plan to the CPUC and BLM for review at least 60 prior to the start of construction.

Rationale for Finding. SCE recommended APMs L-8 and G-1 to reduce this impact, however these APMs lack sufficient detail to ensure that impacts will be reduced. By requiring SCE to coordinate with the Indio Pit quarry and submit its coordination plan with the quarry to the CPUC and BLM, these agencies can ensure that the impacts of SCE's construction operations on mining will be minimized.

Reference. Section G.13 (Geology, Mineral Resources, and Soils) of the EIR/EIS provides a complete assessment of the impacts of the Project on the Indio Pit quarry.

Impact G-7: Project structures could be damaged by surface fault rupture at crossings of active and potentially active faults

Project facilities will be subject to hazards of surface fault rupture at crossings of the active Banning, San Geronio, Garnet Hill, San Jacinto, and Casa Loma Faults as well as the potentially active Loma Linda Fault. Hazards will not be as great where the Project route crosses traces of potentially active faults, such as the Mecca Hills Fault. Additionally, while the Devers Substation is not crossed by an active fault, it is located adjacent to two Alquist-Priolo zones. Although unlikely, the substation could potentially be damaged by rupture propagated along unmapped or new shear zones associated with these faults.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact G-7 to a less than significant level. This measure identified as G-7a is included below.

G-7a Minimize project structures within active fault zones. SCE shall perform a geologic/geotechnical study to confirm the location of mapped traces of active and potentially faults crossed by the project route. For crossings of active faults, the towers shall be placed as far as feasible outside the area of mapped fault traces. Compliance with this measure shall be documented to the CPUC and BLM in a report submitted for review and approval at least 60 days prior to the start of construction.

Rationale for Finding. In general, APMs G-2, G-3, and G-8 require that towers be sited so as not to straddle active fault traces and that the route alignment be designed to cross an active fault such that future rupture on the fault will not cause excessive stress on the line or the towers. By requiring SCE to locate towers as far outside of fault areas as possible, this mitigation measure minimizes the length of

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transmission line within fault zones and distribute fault displacements over a comparatively long span. With the report submittal to CPUC and BLM, these agencies can ensure that potential impacts will be reduced.

Reference. Section G.13 (Geology, Mineral Resources, and Soils) of the EIR/EIS provides a complete assessment of the impacts of faults on the Project.

V.3 Significant Environmental Impacts That Cannot Be Avoided or Reduced to a Less than Significant Level

Based on the issue area assessment in the EIR/EIS, the Commission has determined that the Project will have significant impacts in the issue areas discussed below, and that these impacts cannot be avoided or reduced. These findings are based on the discussion of impacts in the detailed issue area analyses in Section D of the EIR/EIS, located in Volumes 1 and 2 and the cumulative impacts discussed in Section F (Cumulative Scenario and Impacts) of the EIR/EIS.

V.3.1 Visual Resources

Impact V-48: Inconsistency of the Harquahala Mountain Telecommunication Facility with BLM VRM Class II management objective due to increased structure contrast, industrial character, view blockage, and skylining when viewed from Harquahala Mountains Wilderness and surrounding area

The Harquahala Mountain telecommunication facility will be constructed adjacent to an existing facility on BLM lands designated VRM Class II and in close proximity to the Harquahala Mountains Wilderness Area, which is designated VRM Class I. Although the new structures will be similar to the existing facilities, the new facility will cause an increase in industrial character, structure skylining, and view blockage. Of particular concern are views from the adjacent Harquahala Mountains Wilderness, the Smithsonian Observatory, and the Harquahala Pack Trail.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on the environment. However, even with implementation of Measure C-1g, significant unavoidable impacts will occur as described above. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. The BLM's Visual Resource Management (VRM) Class II objective requires that the existing character of the landscape be retained and that the level of change to the characteristic landscape be low and not attract the attention of the casual observer. The new facility will not repeat the basic elements found in the natural features of the landscape. Therefore, the new facility will not achieve full consistency with the Class II objectives because of the moderate level of visual change. The resulting visual impact will be significant (Class I) and there are no other feasible measures or alternatives that will reduce this impact to less than significant.

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Reference. Section D.3.6.1 (Harquahala to Kofa National Wildlife Refuge) of the EIR/EIS provides a complete assessment of the impacts from construction of the Harquahala Mountain Telecommunication Facility.

Impact V-7: Increased visual contrast, view blockage, and skylining when viewed from Key Viewpoint 4 on Crystal Hill Road in Kofa NWR

The DPV2 transmission line towers (F-50 through F-53) will be similar in scale and design to the DPV1 line and conductor spans will generally be matched. The new structures and conductors will cause a noticeable increase in structure prominence and industrial character along the corridor. Additional skylining (extending above the horizon line) and view blockage of background sky and the Livingston Hills and Kofa Mountains will also occur.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on the environment. However, even with implementation of the Mitigation Measure V-3a, significant unavoidable impacts will occur at Key Viewpoint 4. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. View blockage of background sky and mountains is a key consideration in the conclusion of overall visual change. In this narrow valley landscape with somewhat confined sightlines, the most notable features are the rugged mountains with jagged ridgelines that form the southern backdrop to the existing corridor. Any additional blockage of these scenic features will substantially compromise overall visual quality within this portion of Kofa. The resulting visual impact will be significant (Class I) and there are no other feasible measures or alternatives that will reduce this impact to less than significant.

Reference. Section D.3.6.2 (Kofa National Wildlife Refuge) of the EIR/EIS provides a complete assessment of the impacts from construction to Key Viewpoint 4.

Impact V-15: Inconsistency with Interim BLM VRM Class II management objective due to increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 10 in the Alligator Rock ACEC

Although the new structures will be of similar design and height as the existing DPV1 structures, the new structures will cause additional skylining and view blockage of the Chuckwalla Mountains in the background. The new line will also increase the structural complexity and industrial character visible from the several access roads within the Alligator Rock ACEC. These visual effects will become more pronounced the closer the viewer is to the transmission line.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on the environment. However, even with implementation of the Mitigation Measure V-3a, significant unavoidable impacts will occur in the Alligator Rock ACEC. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of

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Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. The BLM's Visual Resource Management (VRM) Class II objective require that the existing character of the landscape be retained and that the level of change to the characteristic landscape be low and not attract the attention of the casual observer. The new line will not achieve any of the Class II objectives. There is no mitigation available to reduce the significant visual impact to a level that will be less than significant. A new 500 kV transmission line will create change exceeding "moderate" and it will dominate the view. The resulting visual impact will be significant (Class I) and there are no other feasible measures or alternatives that will reduce this impact to less than significant.

Reference. Section D.3.6.6 (Midpoint Substation to Cactus City Rest Area) of the EIR/EIS provides a complete assessment of the impacts from construction to Key Viewpoint 10.

Impact V-37: Inconsistency with Interim BLM VRM Class III management objectives due to the introduction of structure contrast, industrial character, view blockage, and skylining when viewing the Chuckwalla Mountains from Key Viewpoint 31 on southbound Kaiser Road, north of Desert Center

This alternative route will result in the introduction of a new 500 kV transmission line into a rural landscape lacking similar built structures of industrial character. Although other built structures are visible in the Desert Center landscape, only a single telecommunications tower shares the structural complexity or vertical extent of the lattice transmission towers.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on the environment. However, even with implementation of the Mitigation Measure V03a, significant unavoidable impacts will occur from Key Viewpoint 31. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. The new line will not repeat the basic elements of the existing natural features in the landscape and will cause view blockage of sky and portions of the Chuckwalla Mountains and Alligator Rock depending on viewpoint location. The new line will also appear co-dominant to the casual observer. The overall level of change will be moderate-to-high, which will not meet the VRM Class III objective of a moderate degree of visual change. The resulting visual impact will be adverse and significant (Class I). There are no feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. Section D.3.8.5 (Alligator Rock-North of Desert Center Alternative) of the EIR/EIS provides a complete assessment of the impacts from construction to Key Viewpoint 10.

Impact V-40: Increased structure contrast and skylining when viewing the San Jacinto Mountains from Key Viewpoint 33 on the Pacific Crest Trail in the vicinity of the Snow Creek Village residential community

The new and existing towers will appear similar in design and height and will be paired up. The new structures will cause a noticeable increase in structure prominence and industrial character within the

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corridor. Additional skylining and view blockage of background sky and mountain ridges will also occur. Additional visual contrast will be caused by the highlighting of the conductors by the afternoon sun. Although the additional towers will appear similar in design and height to that of the existing towers, the additional skylining, view blockage, and increased structural prominence will result in a moderate degree of visual contrast.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on the environment. However, even with implementation of the measures presented below, significant unavoidable impacts will occur to Key Viewpoint 33 on the Pacific Crest Trail. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

V-40a Reduce visual contrast of towers and conductors. The following design measures are to be applied to all new structures and conductors in order to reduce the degree of visual contrast caused by the new facilities: (a) all new structures are to as closely as possible match the design of the existing structures with which they will be seen; (b) all new structures are to be paired as closely as possible with the existing structure(s) in the corridor in order to avoid or reduce the number of off-setting (from existing structures) tower placements; (c) all new structures are to match the heights of the existing D-V1 structures to the extent possible as dictated by variation in terrain; (d) all new spans are to match existing conductor spans as closely as possible in order to avoid or reduce the occurrence of unnecessary visual complexity associated with asynchronous conductor spans, particularly at sensitive crossings such as SR 62, I-10, SR 111, SR 243, SR 79, Gilman Springs Road, Ramona Expressway, Menifee Road, and SR 74; (e) all new conductors are to be non-specular in design in order to reduce conductor visibility and visual contrast, and (f) no new access roads are to be constructed downhill from existing or towers to reduce the potential for skylining. SCE shall provide to the CPUC, BLM, and Forest Service a Project Design Plan demonstrating implementation of this measure at least 90 days prior to the start of construction, and shall not commence construction until the Project Design Plan has been approved by the CPUC, BLM, and Forest Service.

V-40b Reduce visual contrast of towers and conductors on San Bernardino National Forest land. The following design measures are to be applied to all new structures and conductors on SBNF land based on SCE's consultation with SBNF staff prior to completion of final design. The details of these measures shall be developed:

In all areas:

- Transmission lines should have a permanent coloring of dark gray.
- All towers not back-dropped on mid-slope should have permanent coloring of cool mid-gray (battleship gray).

In mid-slope areas (as defined by SBNF):

- All towers and concrete bases on slopes which could serve as backdrops (mid-slope) should be painted olive drab.
- Tower pads should be left uneven without leveling.
- No construction roads shall be built.
- Towers shall be constructed by air support.

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At ridge crossing and mid-slope (as defined by SBNF):

- Towers should be constructed of lower profile to more closely “hug” the top of the ridge to avoid tower silhouetting.
- Graphic studies from dominant view sites should be used to best place towers where they would be best back-dropped from expected viewing points.
- All towers and concrete bases on slopes which could serve as backdrops (mid-slope) should be painted olive drab.
- Tower pads should be left uneven without leveling.
- No construction roads shall be built.
- Towers should be constructed by air support.

V-40c Reduce visual contrast of towers and conductors near the Pacific Crest Trail. For towers located south of I-10 and outside of the SBNF, the following provisions apply:

- Where towers could be practicably back-dropped, utilize mitigation suggested for mid-slope and Ridge Crossing on SBNF lands (as defined in Mitigation Measure V-40b).
- The PCT shall not be crossed with construction roads.
- Locate towers so that the PCT is in the middle of the span (if this does not involve placement of extra or taller span towers to accomplish such action).

Rationale for Finding. The overall visual change will be moderate and in the context of the existing landscape’s overall moderate-to-high visual sensitivity, the resulting visual impact will be significant (Class I). This conclusion is substantially influenced by the high sensitivity of the Pacific Crest Trail (that is in close proximity to both the lower and upper elevations of route) and the adjacent residential community. The San Bernardino National Forest Land Management Plan (Part II, page 100) states that the scenic value of the trail should be protected and where practicable, unconforming land uses within the viewshed of the trail should be avoided. The Plan further states that the trail should be managed as a Sensitivity Level 1 and with the Visual Quality Objective of Retention (comparable to the SIO of High). Based on the policies regarding the management of the Pacific Crest Trail and the overall visual change, the resulting visual impact will be significant and unavoidable (Class I). There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. Section D.3.9 (Devers-Valley No. 2 Alternative) of the EIR/EIS provides a complete assessment of the impacts from construction to Key Viewpoint 33.

Impact V-41: Inconsistency with BLM VRM Class II management objective due to introduction of structure contrast and industrial character when viewing the San Jacinto Mountains from BLM-managed lands within the Santa Rosa and San Jacinto Mountains National Monument (in the vicinity of KVP 33)

The D-V2 route will introduce a new 500 kV transmission line adjacent to the existing D-V1 transmission line. The visual change associated with this route segment will be similar to that described for Impact V-40, above, though the visual impacts will be somewhat more pronounced because of the closer proximity of the route to the BLM-managed lands.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on the environment. However, even with implementation of Mitigation Measure V-40a,

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significant unavoidable impacts will occur in the vicinity of Key Viewpoint 33. The EIR/EIS did not identify any feasible mitigation measures that will this visual impact to less-than-significant levels. The significant unavoidable visual effect is overridden as set forth in Section VII of the Decision - Statement of Overriding Considerations.

Rationale for Finding. Although the new structures will be of similar design and height as the existing D-V1 structures, the new structures will cause additional skylining and view blockage of the San Jacinto Mountains. The new line will also increase the structural complexity and industrial character visible from Monument lands. These visual effects will become more pronounced the closer the viewer is to the transmission line. The resulting visual contrast for structural form and line will be moderate, while color and texture contrast will be weak. The new line will not repeat the basic elements of the existing natural features in the landscape and will cause view blockage of sky and the San Jacinto Mountains. The new line will also appear co-dominant to the casual observer on the San Jacinto National Monument lands. The resulting visual impact will be significant and unavoidable (Class I). There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. Section D.3.9 (Devers-Valley No. 2 Alternative) of the EIR/EIS provides a complete assessment of the impacts from construction to Key Viewpoint 33.

Impact V-42: Inconsistency with U.S. Forest Service Scenic Integrity Objective (SIO) due to introduction of structure contrast and industrial character

The D-V2 route will result in the introduction of additional energy infrastructure onto approximately 1.4 miles of public lands administered by the U.S. Forest Service. The increased industrial character and structural complexity and prominence imparted by the towers and conductors will result in levels of visual contrast that will be inconsistent with the *VERY HIGH* Scenic Integrity Objective assigned to the Forest Service lands. A *VERY HIGH* Scenic Integrity Objective means the "valued" landscape character "is" intact with only minute if any deviations. Minor adjustments are allowed with Forest Supervisor approval or for temporary drops in the Scenic Integrity Objective.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on the environment. However, even with implementation of Mitigation Measure V-40a, significant unavoidable impacts will occur to Forest Service lands. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. The DV-2 route will cause the scenic integrity value to at least two levels to *MODERATE* or possibly three levels to *LOW*. The increased visual contrast associated with the additional transmission line will cause the landscape character to appear at least slightly altered which is a characteristic of *MODERATE* scenic integrity. Since the project-induced changes will be essentially permanent or at least long-term (greater than three years), the impact will exceed the exception allowed under Aesthetic Management Standard S10. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

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Reference. Section D.3.9 (Devers-Valley No. 2 Alternative) of the EIR/EIS provides a complete assessment of the visual impacts from construction of the Project on Forest Service lands.

Impact V-43: Increased structure contrast, skylining, and view blockage when viewed from Key Viewpoint 34 in the residential community in Cabazon

The new and existing towers will appear similar in design and height and will be paired up. The new structures will cause a substantial increase in structure prominence and industrial character within the corridor, which is located within the immediate foreground, of views from nearby residences. Additional skylining and view blockage of background sky and mountain ridges will also occur.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on the environment. However, even with implementation of Mitigation Measure V-40a, significant unavoidable visual impacts will occur to the residential community in Cabazon. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. Although the additional towers will appear similar in design and height to that of the existing towers, the additional skylining, view blockage, and increased structural prominence will result in a moderate-to-high degree of visual contrast due to their close proximity to residential views. The D-V2 alternative will appear co-dominant with the existing transmission line and landforms of the San Jacinto Mountains. View blockage of background sky and mountains will be moderate-to-high. The significant impact conclusion is substantially influenced by the high sensitivity of the adjacent residential community and the close proximity of the structures to those residences. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. Section D.3.9 (Devers-Valley No. 2 Alternative) of the EIR/EIS provides a complete assessment of the visual impacts from construction of the Project near the Cabazon residential community.

Impact V-44: Increased structure contrast and skylining when viewing the San Jacinto Mountains and San Gorgonio Pass from Key Viewpoint 35 on southbound State Route 243

The new and existing structures will be paired and will appear similar in design and height but will be offset in elevation due to the slope and variation in terrain. The new structures will cause a substantial increase in structure prominence and industrial character within the corridor as viewed from SR 243.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on the environment. However, even with implementation of Mitigation Measure V-40a, significant unavoidable visual impacts will occur at SR 243. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

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Rationale for Finding. The new transmission line will appear co-dominant compared to the existing line and the northern ridges of the San Jacinto Mountains and view blockage of higher value landscape features (sky, ridges, and the Pass) will be moderate. The overall visual change will be moderate and in the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact will be significant (Class I). This conclusion is substantially influenced by the high sensitivity imparted to a State-designated scenic highway. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. Section D.3.9 (Devers-Valley No. 2 Alternative) of the EIR/EIS provides a complete assessment of the visual impacts from construction of the Project at SR 243.

Impact V-45: Increased structure contrast, skylining, and view blockage when viewed from residential areas in southern Banning and Beaumont

The new and existing towers will appear similar in design and height and will be paired up. The new structures will cause a substantial increase in structure prominence and industrial character within the corridor, which is located within the foreground, of views from nearby residences. Additional skylining and view blockage of background sky and mountain ridges will also occur.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on the environment. However, even with implementation of Mitigation Measure V-40a, significant unavoidable visual impacts will occur in southern Banning and Beaumont. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. Although the additional towers will appear similar in design and height to that of the existing towers, the additional skylining, view blockage, and increased structural prominence will result in a moderate-to-high degree of visual contrast due to their close proximity to residential views. The D-V2 Alternative will appear co-dominant with the existing transmission line and background landforms. View blockage of background sky and mountains will range from moderate to moderate-to-high depending on the viewpoint. This conclusion is substantially influenced by the high sensitivity of the adjacent residences and the relatively close proximity of the structures to those residences. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. Section D.3.9 (Devers-Valley No. 2 Alternative) of the EIR/EIS provides a complete assessment of these visual impacts.

Impact V-46: Inconsistency with BLM VRM Class II management objective due to introduction of structure contrast and industrial character when viewing from BLM-managed lands within the Potrero ACEC

Although the new structures will be of similar design and height as the existing D-V1 structures, the new structures will cause additional skylining and view blockage of sky and mountains. The new line will also increase the structural complexity and industrial character visible from within the ACEC. These visual effects will become more pronounced the closer the viewer is to the transmission line.

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Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on the environment. However, even with implementation of Mitigation Measure V-40a, significant unavoidable visual impacts will occur in southern Banning and Beaumont. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. Lands administered by the BLM within the Potrero ACEC will be subject to Visual Resource Management (VRM) Class II management objective. The VRM Class II objective requires that the existing character of the landscape be retained and that the level of change to the characteristic landscape be low and not attract the attention of the casual observer. Also, any changes to the landscape must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the landscape. The new line will not achieve any of the Class II objectives. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. Section D.3.9 (Devers-Valley No. 2 Alternative) of the EIR/EIS provides a complete assessment of the visual impacts to the Potrero ACEC.

Impact V-47: Increased structure contrast, skylining, and view blockage when viewed from Key Viewpoint 36 on Mapes Road

The new and existing towers will appear similar in design and height and will be paired up. The new structures will cause a substantial increase in structure prominence and industrial character within the corridor, which is located within the immediate foreground, of views from numerous nearby residences. Additional skylining and view blockage of background sky, hills, and mountain ridges will also occur.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on the environment. However, even with implementation of Mitigation Measure V-40a, significant unavoidable visual impacts will occur on Mapes Road. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. Although the additional towers will appear similar in design and height to that of the existing towers, the additional skylining, view blockage, and increased structural prominence will result in a moderate-to-high degree of visual contrast due to their close proximity to residential views and views from local roads. The D-V2 route will appear co-dominant with the existing transmission line. View blockage of background sky and mountains will be moderate-to-high. This significant impact conclusion is substantially influenced by the high sensitivity of the adjacent residences and the close proximity of the structures to those residences. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. Section D.3.9 (Devers-Valley No. 2 Alternative) of the EIR/EIS provides a complete assessment of the visual impacts to Key Viewpoint 36.

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Cumulative project activities could impact visual resources along Project route

There are six cumulative energy infrastructure projects (see Section F of the EIR/EIS) that would share many of the same characteristics of the Project, and may be within the same field of view. These cumulative projects exhibit similar vertical structural form, structural complexity, and industrial character as the Project. In each case, the Project and the cumulative projects combined will result in a perceived increase in industrialization of the landscape, diminution of visual quality, and increase in visual contrast. Also, in the cases where there appear to be multiple corridors due to greater separation between facilities, the projects would contribute to a sense of proliferation of energy infrastructure within the I-10 corridor.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant cumulative effects on the environment. However, even with implementation of Mitigation Measures V-3a and V-3b, significant unavoidable visual impacts will occur for operation of the Project. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. The resulting cumulative visual impacts would be substantially greater than those that would occur with the Project alone and they would be significant. For example, within Kofa National Wildlife Refuge, the DPV2 line would result in a considerable cumulative visual impact when viewed in the context of the existing DPV1 line. When placed adjacent to DPV1, the visual effects of the DPV2 line (increased visual contrast, structural prominence and, view blockage) would substantially exacerbate the existing adverse visual impacts of the existing DPV1 line, resulting in a considerable cumulative visual impact. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. Section F.3.2 (Visual Resources) of the EIR/EIS provides a complete assessment of the cumulative impact on visual resources.

V.3.2 Wilderness and Recreation***Impact WR-2: Operation would change the character of a recreation or wilderness area, diminishing its recreational value***

The telecommunications component will require the construction of an approximately 400-square-foot facility in addition to an 110-foot radio tower on a total of 0.25 acres. Construction of this facility will increase the total amount of industrial development on the Harquahala Mountain. As the Harquahala Mountains WA is located a few feet to the east and extends north to south across the summit of the mountain, visitors to the WA will be able to see this increase in development from vantage points within the WA (see Section D.3.6.1, Visual Resources). In addition, the telecommunication facility will have a significant indirect effect on the Solar Observatory as a visual intrusion.

The Project will create a new 500 kV transmission line across the Kofa NWR, Indio Hills Palms State Park, Coachella Valley Preserve, ACECs (Chuckwalla, Alligator Rock, Coachella Valley Fringe-Toed Lizard, Potrero), Santa Rosa and San Jacinto National Monument, San Bernardino National Forest, Pacific Crest Trail, and San Jacinto WA. Although the Project will be located adjacent to an existing 500 kV line

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(DPV1), the amount of industrial development will be intensified as a result of the Project by siting a new 500 kV transmission line next to an existing 500 kV transmission line.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on the environment, except that no measures were identified to reduce impacts to the ACECs. However, even with implementation of measure C-1g (noted in Cultural Resources) and measure WR-2a below, significant unavoidable impacts will occur along the Harquahala to Kofa NWR segment, within Kofa NWR, within the Chuckwalla ACEC and within Alligator Rock ACEC. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

WR-2a Coordinate with USFWS to improve impacted areas within Kofa National Wildlife Refuge.

SCE shall coordinate with the USFWS to improve impacted areas within the Kofa National Wildlife Refuge (NWR). The implementation of improvements would be conducted at the discretion of the authorized officer for the Kofa NWR, and may include the acquisition of private land inholdings from willing sellers within the refuge boundaries, and the rehabilitation of abandoned mine sites and old roads within the refuge. SCE shall document its coordination with the authorized officer of the Kofa NWR, and must demonstrate that negotiations and subsequent improvements have been conducted to the satisfaction of the USFWS. Documentation shall be submitted to the CPUC and the BLM at least 30 days prior to operation of the project.

Rationale for Finding. Implementation of the telecommunications facility resulting from operation of the Project will permanently diminish the character of Harquahala Peak and the Harquahala Mountains WA. Overall, Project operation will significantly change the character of recreational resources along the Harquahala to Kofa NWR segment and diminish their recreational value.

While the Project will not introduce a new industrial use across an undeveloped recreation area, it will intensify the industrial nature of the ROW through the construction and operation of new towers and spur roads. Transmission towers are large structures, approximately 150 feet in height. Given the substantial size of these structures and their industrial appearance, the transmission towers will contrast with the natural landscape of wilderness and recreation resources. The Project will significantly increase the total amount of industrial development within the wilderness and recreational resources traversed by the transmission line, further degrading its landscape and character. Overall, development and operation of the project will change the character of wilderness and recreation resources and will significantly diminish their recreational value.

There are no other feasible mitigation measures or alternatives available to reduce the significant impact to wilderness and recreation to a level that will be less than significant.

Reference. Section D.5.6 (Wilderness and Recreation) of the EIR/EIS provides a complete assessment of the wilderness and recreation impacts.

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Cumulative project activities could impact Wilderness and Recreation along Project route

It is likely that construction of some of the cumulative projects would overlap with construction of the Project. The construction of multiple projects within the same area will create a significant cumulative construction impact to wilderness and recreation areas.

Cumulatively considerable impacts will also occur with the implementation or operation of the Project and cumulative projects. For example, east of the Devers Substation, the Project would be constructed adjacent to the existing DPV1 transmission line. The DPV1 transmission line was constructed across or adjacent to recreation areas in La Paz and Maricopa Counties in Arizona, and Riverside County in California, including the Kofa NWR, Chuckwalla Valley Dune Thicket ACEC, Alligator Rock ACEC, and the Coachella Valley Preserve and Coachella Valley Fringe-Toed Lizard ACEC. Adding the Project to this existing corridor and the cumulative projects will intensify the industrial development that crosses wilderness and recreational resources.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on the environment. However, even with implementation of measures WR-3a, significant unavoidable impacts will occur to wilderness and recreational resources. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. Any additional projects that may traverse wilderness and recreational areas along the Project route will further increase the industrial development and further reduce the undeveloped, natural landscape of these areas. As significant impacts have already occurred to the character and recreational value of the recreation areas located along the DPV1 line (BLM, 1979), operation of the Project, alone or in conjunction with other projects, would contribute to a significant, cumulative effect to established recreation areas. There are no other feasible mitigation measures or alternatives available to reduce the significant impact to wilderness and recreation to a level that will be less than significant.

Reference. Section F3.4 (Wilderness and Recreation) of the EIR/EIS provides a complete assessment of the cumulative wilderness and recreation impacts of the Project.

V.3.3 Agriculture***Impact AG-3: Operation Will Permanently Convert Farmland to Non-Agricultural Use***

Discussed in Section D.6 (Agriculture) of the EIR/EIS, the Project will significantly impact agriculture along the Project route. The Project will create significant and unmitigable impacts to approximately 16 acres of Farmland, of which 13.6 acres will be Prime Farmland. The operation or presence of Project components will impact Farmland through the permanent removal and conversion of agricultural land to non-agricultural uses, such as from the siting of roadways or tower structures. Therefore, the Project will cause the loss of 16 acres of Farmland.

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route

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Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. This impact is significant because operation of the Project, or presence of Project structures, will permanently remove agriculture land, thereby converting it to use as locations for towers structures, roadways, and other Project components. There is no known mitigation for the loss of designated Farmland as the only option to mitigate or avoid the Project's contribution to removing Farmland will be to not construct the Project. There are no other feasible mitigation measures or alternatives available to reduce the significant impact to agriculture to a level that will be less than significant.

Reference. Section D.6 of the EIR/EIS provides a complete assessment of the operational impacts of the Project on the conversion of Farmland to non-agricultural uses.

Construction and Operation of Cumulative Projects Could Impact Agricultural Resources

As described in Section F (Cumulative Scenario and Impacts) of the EIR/EIS, other proposed or ongoing projects within five miles of the Project will disturb more than 11,500 acres. Due to the quantity and location of these projects and the wide distribution of agricultural resources, it is likely these projects will remove Farmland and Williamson Act land and interfere with agricultural operations. Therefore, there is a potential for significant cumulative impacts to agricultural resources.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects of the Project. With the incorporation of APMs L-4 and L-5, and the implementation of Mitigation Measures AG-1a, AG-4a, and L-1a effects on most agricultural resources will be reduced to a less than significant level. However, these measures will not reduce the cumulative effects to a less than significant level. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. The specific plans of the cumulative projects are unknown, however it is likely that these projects will remove significant amounts of Farmland, and significantly interfere with agricultural operations. Therefore, the addition of the Project will be cumulatively considerable and add significant construction and operational impacts. There are no other feasible mitigation measures or alternatives available to reduce the significant impact to agriculture to a level that will be less than significant.

Reference. Section F of the EIR/EIS provides a complete assessment of the cumulative impacts of the Project on Farmland.

V.3.4 Cultural and Paleontological Resources

Impact C-1: Construction of the project could cause an adverse change to known historic properties

As described in Section F (Cultural and Paleontological Resources), for the portions of the Project that lie within Arizona, the basis for determining significance of cultural resources is driven by the National Historic Preservation Act (NHPA) (36 CFR Part 60.6). Any action, as part of an undertaking, that could affect a "significant" cultural resource is subject to review and comment under Section 106 of the NHPA of 1966. Cultural resources that retain integrity and meet one or more of the criteria of significance [36 CFR

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60.4] qualify as significant and are eligible for listing on the NRHP; such resources must be managed in compliance with the Advisory Council's regulations (36 CFR 800). The criteria used in the evaluation process involve districts, sites, buildings, structures, or objects that possess integrity of location, design, setting, material, workmanship, feeling, and association. Criterion d is most frequently applied to prehistoric sites, and often applied to historical-period sites as well.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on historic resources. However, even with implementation of the measures presented in the EIR/EIS and above (Mitigation Measures C-1a through C-1g), significant unavoidable impacts will occur. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. It is important to note that if direct impacts to NRHP properties eligible under Criterion d (significant data potential) are unavoidable, mitigation through data recovery will reduce impacts, but, under the NHPA regulations, effects will still be considered significant. Likewise, for properties eligible for the NRHP under Criteria a, b, or c data recovery could not reduce impacts to a less than significant level and effects will remain significant. There are no other feasible mitigation measures or alternatives available to reduce the significant impact to cultural and paleontological resources to a level that will be less than significant.

Reference. Section D.7 (Cultural and Paleontological Resources) of the EIR/EIS provides a complete assessment of the cultural resources impacts of the Project.

Impact C-2: Construction of the project could cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains

The potential to discover unanticipated cultural resources during construction exists throughout the Project and could result in adverse effects to cultural resources. If unanticipated sites, features, and/or artifacts were discovered as a result of construction, and those are determined to be NRHP-eligible at the time of discovery, there will be an adverse effect. The potential to discover unknown buried Native American human remains or sacred features, in the form of primary inhumations, cremations, ceremonial bundles, or mourning ceremony features during construction could exist, resulting in adverse effects.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant effects on cultural resources. However, even with implementation of the measures presented in the EIR/EIS and above (Mitigation Measures C-1c through C-1f, and C-2a), significant unavoidable impacts will occur. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. Adverse effects could be reduced by data-recovery investigations, but by virtue of the fact that such resources will be discovered after final project design and engineering, avoidance and protection of such resources will be infeasible. Therefore, if NRHP-eligible resources are impacted during construction, even after data recovery, effects will be significant, under the regulations in the NHPA. In addition, if unanticipated buried Native American human remains or sacred features were discovered as a

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result of construction, then there will be a significant and unavoidable impact to the remains, an adverse effect under the regulations in the NHPA. There are no other feasible mitigation measures or alternatives available to reduce the significant impact to cultural and paleontological resources to a level that will be less than significant.

Reference. Section D.7 (Cultural and Paleontological Resources) of the EIR/EIS provides a complete assessment of the cultural resources impacts of the Project.

V.3.5 Noise***Impact N-2: Permanent noise levels along the ROW will increase due to corona noise from operation of the transmission lines***

As discussed in Section D.8 (Noise) of the EIR/EIS, noise generated by operation of the Project will create Corona Noise along the entire Project route. Some segments of the Project will create a permanent increase in ambient noise to nearby residential receptors. Along the route, residential receptors at the following locations will incur permanent noise increases as a result of the Project:

- Two to three residences at State Route 78 (MP E108.4) within 25 feet of the Project ROW will increase noise levels in excess of 65 Ldn.
- Residences of unincorporated Riverside County (Thousand Palms and North Palm Springs) within 25 feet of the Project ROW.
- Residences within 25 feet of the corridor of the Devers-Valley No. 2 Alternative

Operational noise at these locations will have the potential to permanently increase existing ambient noise conditions.

Finding. The CPUC finds that changes or alternations have been incorporated in the Project to address significant permanent noise increases on the environment. However, even with implementation of the APMs incorporated into the project (see APM L-7 which applies to this impact in Table B-10 of Section B.5 of the EIR/EIS), significant unavoidable impacts will occur at those specific locations identified above. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. For the impacted residences identified at State Route 78 (MP E108.4) within 25 feet of the Project ROW, SCE hopes to relocate the homes, as proposed in APM L-7; however, SCE has provided no details on whether the proposed relocation of the homes or the lines can feasibly be implemented. If implementation of APM L-7 proves problematic, the operation of the Project will create an infrequent, but significant, impact for residential land uses within 25 feet of the ROW (as identified above) that will remain unavoidable. There are no other feasible mitigation measures or alternatives available to reduce the significant noise impact to a level that will be less than significant.

Reference. Section D.8 (Noise) of the EIR/EIS provides a complete assessment of the operational noise impacts of the Project.

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V.3.6 Air Quality***Impact AQ-1: Construction will generate dust and exhaust emissions***

As discussed in Section D.11 (Air Quality) of the EIR/EIS, dust and exhaust generated during construction of the Project will create significant impacts to the segments along the entire Project route and alternatives located within air basins managed by the South Coast Air Quality Management District (SCAQMD). Daily construction emissions will be potentially significant for NO_x, VOC, and PM₁₀ within the SCAQMD jurisdiction. The jurisdiction of the SCAQMD includes the following project components inside the SCAQMD boundary, east of the Devers Substation:

- Construction of 349 new towers and 105 miles of transmission line
- Construction of upgrades at the Devers Substation
- Access and spur road construction and repair

In addition, the following Alternative route segments will result in construction activities within the SCAQMD that will result in potentially significant impacts for NO_x, VOC, and PM₁₀ emissions:

- Alligator Rock-North of Desert Center Alternative
- Devers-Valley No. 2 Alternative
- Desert Southwest Transmission Project Alternative

Finding. The CPUC finds that the mitigation measures listed below (and Mitigation Measure AQ-1a from Section IV-2.10 above) have been incorporated in the Project to address significant air quality emission increases on the environment during construction in the SCAQMD jurisdiction. The VOC emissions estimates calculated in the EIS/EIR Section D.11, Air Quality, will exceed the SCAQMD daily regional significance criteria. The Project's NO_x and PM₁₀ emissions, even after implementation of these feasible mitigation measures, will remain above the SCAQMD daily significance threshold values. In addition, even with implementation of the proposed fugitive dust Mitigation Measures presented above, significant unavoidable localized PM₁₀ impacts for nearby sensitive receptors (only those limited sensitive receptors located closer than 50 meters to new tower sites) within SCAQMD jurisdiction will still occur. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

AQ-1b Use ultra low-sulfur diesel fuel. CARB-certified ultra low-sulfur diesel (ULSD) fuel containing 15 ppm sulfur or less shall be used in all diesel-powered construction equipment.

AQ-1c Restrict engine idling. Diesel engine idle time shall be restricted to no more than a 10 minutes duration.

AQ-1d Use lower emitting offroad diesel-fueled equipment. All offroad construction diesel engines not registered under CARB's Statewide Portable Equipment Registration Program, which have a rating of 50 hp or more, shall meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, section 2423(b)(1) unless that such engine is not available for a particular item of equipment. In the event a Tier 2 engine is not available for any offroad engine larger than 100 hp, that engine shall

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be equipped with a Tier 1 engine. In the event a Tier 1 engine is not available for any offroad engine larger than 100 hp, that engine shall be equipped with a catalyzed diesel particulate filter (soot filter), unless certified by engine manufacturers that the use of such devices is not practical for specific engine types. Equipment properly registered under and in compliance with CARB's Statewide Portable Equipment Registration Program are considered to comply with this mitigation measure.

AQ-1e Use onroad vehicles that meet California onroad standards. All onroad construction vehicles working within California shall meet all applicable California onroad emission standards and shall be licensed in the State of California. This does not apply to construction worker personal vehicles.

AQ-1f Use lower emitting offroad gasoline-fueled equipment. All offroad stationary and portable gasoline-powered equipment shall have EPA Phase 1/Phase 2 compliant engines, where the specific engine requirement shall be based on the new engine standard in effect two years prior to the initiating project construction.

AQ-1g Reduce helicopter use during construction. Helicopter use in California shall be limited to that necessary for conductor installation, using helicopters of the smallest practical size; and helicopters shall not be used for delivering supplies or personnel within California federal or State ozone nonattainment areas except as specifically excepted by the CPUC due to limitations in road access and/or to reduce other adverse environmental impacts associated with road construction/travel (such as to biological resources or cultural resources).

AQ-1h Schedule deliveries outside of peak hours. For marshalling and construction yards west of the eastern border of the City of Indio, all material deliveries to the yards and from the yards to the construction sites shall be scheduled to occur outside of peak "rush hour" traffic hours (7:00 to 10:00 a.m. and 4:00 to 7:00 p.m.) to the extent feasible, and other truck trips during peak traffic hours shall be minimized to the extent feasible.

AQ-1i Obtain NOx emission offsets. SCE shall obtain NOx emission reduction credits or offsets in sufficient quantities to offset construction emissions of NOx that exceed the South Coast Air Basin ozone nonattainment area federal General Conformity Rule applicability threshold as determined in the General Conformity analysis for the project. The emission offset method shall comply with SCAQMD rules and regulations, and offsets shall be obtained by SCE prior to construction.

Rationale for Finding. During construction of the Project within the SCAQMD, construction emissions will create a short-term, but significant, impact by exceeding the daily NOx, VOC, and PM10 thresholds within the SCAQMD jurisdiction. This impact will remain unavoidable. There are no other feasible mitigation measures or alternatives available to reduce the significant air quality impact to a level that will be less than significant.

Reference. Section D.11 (Air Quality) provides a complete assessment of the air quality impacts of the Project.

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Cumulative construction air quality impacts could result in a temporary or permanent increase in pollutant levels or violate local air quality rules, standards, and/or ordinances

As discussed in Section F (Cumulative Scenario and Impacts) of the EIR/EIS, there is the possibility that a variety of projects will occur at the same time as Project construction. A number of projects were identified in California in both the MDAQMD and SCAQMD jurisdiction. In the areas where Project construction may occur simultaneously with future and proposed construction projects within one mile of the Project, the combined effects of air quality pollutants generated by the Project and other development will result in cumulative impacts.

Finding. The CPUC finds that mitigation measures identified for the Project will remain applicable (AQ-1a through AQ-1i listed above). Other cumulative projects will also need to comply with local ordinances prohibiting nuisances or requiring dust control. Section D.11 (Air Quality) of the EIR/EIS provides a detailed description of the effects of the Project on air quality and the MDAQMD and SCAQMD CEQA significance determination methodologies. The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

Rationale for Finding. There is the possibility that a variety of projects, mainly roadway improvements or local residential development, will occur at the same time as construction of the Project. Pollutants generated from construction of these projects could result in an impact on ambient air quality that will overlap with those of the Project, if the construction work occurs in close proximity as well as at the same time. Construction of the cumulative projects could further exacerbate the potentially significant project-related construction impacts (Impact A-1). Mitigation measures identified for the Project will remain applicable. Other cumulative projects will also need to comply with local ordinances prohibiting nuisances or requiring dust control. The APMs for air quality and air quality mitigation measures recommended for the Project will reduce cumulative construction impacts to a less than significant level within MDAQMD jurisdiction, but impacts will remain significant after mitigation within SCAQMD jurisdiction. There are no other feasible mitigation measures or alternatives available to reduce the significant air quality impact to a level that will be less than significant.

Reference. Section F (Cumulative Scenario and Impacts) provides a complete assessment of the air quality impacts of the Project.

VI. Finding on the "West Of Devers" Portion of the Proposed Project

As described in Section II.1 (Project Description Summary), at the time of SCE's Application to the CPUC for the DPV2 project, the Project included upgrades to an additional 50 miles of 230 kV transmission lines west of the Devers Substation, called the "West of Devers" portion of the Project. The CPUC has decided to implement the Devers-Valley No. 2 Alternative route instead of the West of Devers upgrades due to the legal infeasibility of the West of Devers segment that would cross over Morongo tribal lands.

Finding/Rationale: The CPUC finds that the West of Devers portion of the proposed Project is less desirable than the adopted Project (including implementation of the Devers-Valley No. 2 Alternative) and rejects this portion of the proposed Project as legally infeasible as a result of the segment which would cross over Morongo tribal lands. Specific economic, legal, social, technological, and other consider-

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ations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make this alternative less desirable than the adopted Project.

VII. Alternatives to the Project

In total, the alternatives screening process culminated in the identification and preliminary screening of 35 potential alternatives or combinations of alternatives. These alternatives ranged from minor routing adjustments to SCE's proposed 500 kV project route, to entirely different transmission line routes, to alternate system voltages, and system designs. Renewable resource technologies, distributed generation, and demand-side management were also considered. The alternatives that were eliminated either did not meet project objectives, did not meet legal, regulatory, and technical feasibility criteria, and/or did not avoid or reduce environmental effects of the Project.

For example, three alternative routes that will avoid Kofa National Wildlife Refuge (SCE North of Kofa NWR–South of I-10 Alternative, SCE North of Kofa NWR–North of I-10 Alternative, North of Kofa Alternative) were developed. All three alternatives will meet project objectives, but all will also be outside of BLM-designated utility corridors. As a result of greater impacts to recreation, visual, and biological resources, and the challenges in obtaining regulatory approvals, all three alternatives that will avoid Kofa NWR were eliminated from full consideration and the route through the wildlife refuge was found to be the most environmentally preferred.

VII.1 Transmission Line Route Alternatives: Devers-Harquahala

VII.1.1 SCE Harquahala-West Alternative

The "Harquahala-West Subalternate Route" will begin at the Harquahala Generating Station Switchyard. Rather than departing the Harquahala Switchyard to the east paralleling the existing Harquahala-Hassayampa 500 kV towers, the Harquahala-West Alternative will depart the Harquahala Generating Station Switchyard to the west and follow section lines due west for approximately 12 miles through private and State lands to the El Paso Natural Gas Pipeline corridor. This portion of the route parallels Courthouse Road approximately one mile to the north along section lines to the pipeline corridor. At the pipeline corridor, the transmission line will proceed northwesterly along the pipeline corridor for approximately 9 miles to the intersection with the DPV1 transmission line, immediately north of the El Paso Wendon Pump Station. The length of the Harquahala-West Alternative between the Harquahala Switchyard and the junction with the DPV1 line and the proposed route is 21 miles.

Finding/Rationale. The CPUC finds that the SCE Harquahala-West Alternative is less desirable than the adopted Project and rejects this alternative because it will result in greater environmental impacts due to its creation of a new transmission corridor and effects on agricultural land (Permanent conversion of 23.4 acres of Prime Farmland to non-agricultural use and 35.7 acres of temporary agricultural land disturbance). Specific economic, legal, social, technological, and other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make this alternative less desirable than the adopted Project.

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VII.1.2 SCE Palo Verde Alternative

Under the Palo Verde Alternative, the DPV2 line will terminate at the Palo Verde Nuclear Generating Station (PVNGS) Switchyard instead of Harquahala Generating Station switchyard as is currently proposed. As presented in the 2005 PEA, the Palo Verde Alternative will require construction of a new 500 kV transmission line parallel to the DPV1 transmission line for an additional approximately 14.7 miles to the PVNGS Switchyard. Rather than leave the existing DPV1 transmission corridor and follow the existing Harquahala-Hassayampa 500 kV transmission line west to the Harquahala Switchyard, this alternative route will cross from the western side of the DPV1 transmission line to the east, and continue south, parallel to the existing DPV1 and Harquahala-Hassayampa 500 kV lines. This alternative will avoid the need to construct the proposed 5-mile segment from the Harquahala Generating Station Switchyard to the Harquahala Junction. This route will serve as a backup if SCE's contract to use Harquahala Generating Station as the termination point and acquire the existing Harquahala-Hassayampa 500 kV transmission line falls through and SCE has to build a new line to the PVNGS Switchyard.

Finding/Rationale. The CPUC finds that this alternative is less desirable than the adopted Project and rejects this alternative because it will have greater environmental impacts, because the route will be approximately 9.7 miles longer than the proposed route. Longer length will affect the length and intensity of short-term construction impacts and ground disturbance, affecting air quality, noise, transportation and traffic, hazardous materials related to environmental contamination, water use for dust suppression, and geologic resources related to soil erosion. The potential to disturb unknown cultural resources and impact vegetation and wildlife is also increased with greater ground disturbance. In addition, there will be the potential for adverse visual impacts on views of Saddle Mountain from westbound Salome Highway and to approximately eight residences along the east-west portion of DPV2 route in the vicinity of Elliot Avenue and west of PVNGS. Specific economic, legal, social, technological or other considerations including those identified in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make this alternative less desirable as identified in the EIR/EIS.

VII.1.3 Alligator Rock Alternatives

In addition to the Alligator Rock-North of Desert Center Alternative described in detail in Section II.1 (above), there are two other potential reroutes around the Alligator Rock area that were developed to reduce impacts to cultural and biological resources. A route south of the proposed route was eliminated after preliminary screening due to much greater environmental impacts to all issue areas except visual resources.

Alligator Rock-Blythe Energy Transmission Route Alternative. This route would diverge from the Project route approximately 3.5 miles east of Desert Center and would avoid much of the Alligator Rock ACEC by following its northern edge near I-10. This alternative would follow the proposed Blythe Energy Project Transmission Line Project (BEPTL) by diverging from DPV1 to the north bringing this new alignment close to Aztec Avenue, an existing El Paso Natural Gas Pipeline/access road, which would be used for construction access. Because the proposed new alignment would be close to the pipeline access road, each of the spur roads to the tower sites would be from this existing access road. The alternative route would be approximately 4.6 miles long and the Project would be approximately 3.95 miles long in the same segment.

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Alligator Rock–South of I-10 Frontage Alternative. This alternative route is the same as the route proposed for the Desert Southwest Transmission Project (see below). The South of I-10 Frontage Alternative would diverge from the Project approximately 3.5 miles east of Desert Center and would follow the Alligator Rock–Blythe Energy Transmission Route Alternative route for 3.25 miles to the point at which the BEPTL Alternative turns southwest, just east of Alligator Rock. After passing between the northern end of Alligator Rock and the I-10 itself, this alternative would continue in a westerly direction, immediately south of I-10 and Aztec Avenue for 6.5 miles. It would rejoin the Project route between MPs 160 and 161. The Alligator Rock–South of I-10 Frontage Alternative would be 9.77 miles long and the proposed route would be 9.2 miles long in the equivalent segment.

Finding/Rationale. Because it is likely that the Alligator Rock–North of Desert Center Alternative will be selected, these other two route alternatives intended to avoid the impact to the Alligator Rock portion of the route proposed by SCE are not necessary. Therefore, the CPUC finds that these alternative routes are less desirable than the adopted Project and are rejected.

The Alligator Rock–Blythe Energy Project Alternative is 0.65 miles longer than the proposed route. It will have the same Class I impacts in air quality and cultural resources, although the cultural resources potentially affected will likely have less value than those in the heart of the ACEC. The alternative will create a different Class I visual impact, Impact V-38, resulting from inconsistency with Interim BLM VRM Class II management objective when viewing Alligator Rock from westbound I-10, east of Desert Center.

The Alligator Rock–South of I-10 Frontage Alternative is 0.57 miles longer than the proposed route. It will have the same Class I impacts in air quality and cultural resources, although the cultural resources potentially affected will have less value than those in the heart of the ACEC. The alternative will create a different Class I visual impact, Impact V-39 (inconsistency with Interim BLM VRM Class II management objective when viewing Alligator Rock from eastbound I-10).

The CPUC finds that specific economic, legal, social, technological or other considerations have including those identified in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision make these route alternatives less desirable as identified in the EIR/EIS.

VII.2 Other Project Alternatives

VII.2.1 Desert Southwest Transmission Project Alternative

The Desert Southwest Transmission Line Project (DSWTP) Final EIS/EIR, published by the Imperial Irrigation District (IID) and BLM in October 2005, analyzes a proposed new 118-mile 500 kV line between Blythe and SCE's Devers Substation. The BLM issued a Record of Decision on the project on September 15, 2006. The line will originate at a new 25-acre Keim Substation/Switching Station east of the center of Blythe near the Blythe Energy Project power plant. In addition, the DSWTP will include a new Midpoint Substation/Switching Station, located at the eastern intersection of the proposed line with the existing DPV1 line. The new line from the new Keim Substation/Switching Station to the new Midpoint Substation/Switching Station will be constructed as a double-circuit line or two parallel lines. Also, in the future, a new substation could be built near Indio west of Dillon Road, adjacent to the existing transmission line facilities, to connect the proposed transmission line to IID's existing Coachella Substation.

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Much of this alternative route will be in the same corridor as SCE's DPV1 transmission line, the proposed DPV2 line, and the proposed Blythe Energy Project Transmission Line Modifications (BEPTL). For the purposes of this alternatives analysis, the DSWTP differs from the Project in the following respects:

- DSWTP includes the construction of three new substation/switching stations (Keim, Midpoint, and on Dillon Road) that will not be required with the DPV2 Project (although DPV2 includes an option to construct the Midpoint Substation).
- DSWTP requires construction of one double-circuit 500 kV line or two parallel 500 kV transmission lines for 8.8 miles from Keim Substation to Midpoint Substation.
- DSWTP will diverge from the DPV1 corridor to the north (closer to I-10) in the vicinity of Alligator Rock for approximately 9.5 miles.

Finding/Rationale. The CPUC finds that this alternative project will meet project objectives and will be feasible. Overall, the impacts will be very similar to those of the proposed DPV2 Project. The DSWTP route will reduce impacts to biological and cultural resources in the vicinity of Alligator Rock ACEC. However, the Project is preferred over the DSWTP because it will require less ground disturbance and construction of fewer substations. Specific economic, legal, social, technological and other considerations have been identified in Section VII of the Decision (Statement of Overriding Considerations) that make the DSWTP Alternative less desirable than the adopted Project.

VII.3 No Project Alternative

Under the No Project Alternative, construction and operation of DPV2 will not occur. The baseline environmental conditions for the No Project Alternatives are the same as for the Project. The baseline conditions will continue to occur into the future, undisturbed, in the absence of project-related construction activities.

The objectives of the Project will remain unfulfilled under the No Project Alternative. For example, 1,200 MW of transmission import capability into California will not be added, and the additional market competition and improved system reliability and operating flexibility associated with the Project will not occur.

The absence of the Project may lead SCE or other developers to pursue other actions to achieve the objectives of the Project. The events or actions that are reasonably expected to occur in the foreseeable future without DPV2 include the following:

- The existing transmission grid and power generating facilities will continue to operate.
- Continued growth in electricity consumption and peak demand within California is expected. To serve this growth, additional electricity will need to be internally generated or imported into California by existing facilities.
- A continuation of baseline *demand-side* or *supply-side* actions may be expected to occur. *Demand-side* actions include additional energy conservation or load management. *Supply-side* actions can include accelerated development of generation, such as conventional, renewable, and distributed generation, or other major transmission projects.

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Finding/Rationale. The environmental impacts of the No Project Alternative will primarily result from operation of gas-fired turbine generators and new transmission lines. These long-term operational impacts include substantial air emissions and ongoing noise near the generators, as well as visual impacts of the new transmission lines and generators depending on their locations. Therefore, because the No Project Alternative could also require construction of transmission lines with impacts similar to those described for the Project, as well as impacts of generation sources, the CPUC finds that the No Project Alternative is not superior to the Environmentally Superior Alternative. Specific economic, legal, social, technological or other considerations have been identified in Section VII of the Decision (Statement of Overriding Considerations) that make the No Project Alternative less desirable than the adopted Project.

VIII. Findings Regarding Other CEQA Considerations

VIII.1 Growth Inducing Impacts

The growth-inducing potential of a project will be significant if it fosters growth or a concentration of population above what is assumed in local and regional land use plans, or in projections made by regional planning authorities. Significant growth impacts could also occur if a project provides infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies.

Finding/Rationale. Both locally and regionally, the Project area is experiencing substantial population growth, which is reflected in a large number of proposed and planned future residential development projects. The Project is not intended to supply power related to growth for any particular development, either directly or indirectly. The transmission line will be built so that as power loads increase, future overloading of transmission facilities will be avoided. By increasing capacity and reducing generation outages, the Project will increase power reliability. The Project will increase capacity and reduce generation outages, increasing power reliability, and could therefore be seen as indirectly inducing growth. However, the Project will not result in growth inducing impacts as it will not remove any substantial impediments to growth nor will it cause economic expansion or growth in excess of the projected rates of growth in the Project area. Additionally, the Project will not introduce power into undeveloped areas or development into open space as the Project will largely follow existing utility corridors.

VIII.2 Significant Irreversible Environmental Changes

Irreversible and irretrievable environmental changes caused by a Project include uses of nonrenewable resources during construction and operation, long-term or permanent access to previously inaccessible areas, and irreversible damages that may result from project-related accidents.

Finding/Rationale. The Project will result in a number of irreversible and irretrievable commitments of resources. Implementation of the Project will result in the consumption of energy as it relates to the fuel needed for construction-related activities. Construction will require the manufacture of new materials, some of which will not be recyclable at the end of the Project's lifetime, and the energy required for the production of these materials, which will also result in an irretrievable commitment of natural resources. The consumption of nonrenewable resources during maintenance and inspection of the Project will not change appreciably from SCE's existing activities in the project area. Although the Project will result in the permanent loss of approximately 160.1 acres of vegetation and habitat, more than 892 acres will be restored to their previous condition after construction. As this new disturbance will be in existing utility

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corridors, access to previously inaccessible areas will be minimal. During the operation of the Project, the transport of electrical power generated from nonrenewable resources (e.g., natural gas, nuclear) will continue. However, these resources are available and will be available in the reasonably foreseeable future.

The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections III.C (Alternatives to DPV2), IV (DPV2 Route Alternatives) and VII (Statement of Overriding Considerations) of the Decision, make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

VIII.3 Responses to Comments on the Draft EIR/EIS and Revisions to the Final EIR/EIS

Volume 3 of the EIR/EIS includes the comments received on the Draft EIR/EIS and responses to those comments. The focus of the responses to comments is on the disposition of significant environmental issues as raised in the comments, as specified by Section 15088(b) of the State CEQA Guidelines and 40 CFR 1503.4 under NEPA.

As noted above, the CPUC has deleted Section H.1.3 of the Final EIR/EIS.

Finding/Rationale. Responses to comments made on the Draft EIR/EIS and the above-referenced revision to the Final EIR/EIS merely clarify and amplify the analysis presented in the document and do not trigger the need to recirculate per CEQA Guidelines §15088.5(b).

IX. Adoption of a Monitoring and Reporting Program for the CEQA Mitigation Measures

Section 21081.6 of the Public Resources Code requires this Commission to adopt a monitoring or reporting program regarding the changes in the project and mitigation measures imposed to lessen or avoid significant effects on the environment. The Mitigation Monitoring Program is adopted because it fulfills the CEQA mitigation monitoring requirements:

- The Mitigation Monitoring and Reporting Program is designed to ensure compliance with the changes in the project and mitigation measures imposed on the project during project implementation.
- Measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures.

The Devers-Palo Verde No. 2 Transmission Line Project Mitigation Monitoring and Reporting Program is included as Section H of the Final EIR/EIS (Section X).

X. Mitigation Monitoring and Reporting

The following is from EIR/EIS Section H, as modified in Section I of these Findings.

This EIR/EIS includes a proposed Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) for the mitigation measures proposed herein for the Devers-Palo Verde No. 2 Transmission Line Project

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(DPV2). An MMCRP table for the Proposed Project and the alternatives is provided at the end of each issue area's environmental analysis in Section D (D.2 through D.14). This section herein provides the recommended framework for the implementation of the MMCRP by the CEQA Lead Agency, the California Public Utilities Commission (CPUC), and the NEPA Lead Agency, the Bureau of Land Management (BLM), and describes the roles and responsibilities of government agencies in implementing and enforcing adopted mitigation.

H.1 Authority for the Mitigation Monitoring, Compliance, and Reporting Program

H.1.1 California Public Utilities Commission

The California Public Utilities Code in numerous places confers authority upon the CPUC to regulate the terms of service and the safety, practices and equipment of utilities subject to its jurisdiction. It is the standard practice of the CPUC, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval be implemented properly, monitored, and reported on. In 1989, this requirement was codified statewide as Section 21081.6 of the Public Resources Code. Section 21081.6 requires a public agency to adopt a Mitigation Monitoring, Compliance, and Reporting Program when it approves a project that is subject to preparation of an EIR and where the EIR for the project identifies significant adverse environmental effects. *CEQA Guidelines* Section 15097 was added in 1999 to further clarify agency requirements for mitigation monitoring or reporting.

The purpose of a MMCRP is to ensure that measures adopted to mitigate or avoid significant impacts of a project are implemented. The CPUC views the MMCRP as a working guide to facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance and reporting activities of the CPUC and any monitors it may designate.

The CPUC will address its responsibility under Public Resources Code Section 21081.6 when it takes action on SCE's application for a Certificate of Public Convenience and Necessity. If the Commission approves the application, it will also adopt a Mitigation Monitoring, Compliance, and Reporting Program that includes the mitigation measures ultimately made a condition of approval by the Commission.

H.1.2 Bureau of Land Management and Other Federal Lands

BLM is the federal Lead Agency for the preparation of this EIR/EIS in compliance with NEPA, the Council on Environmental Quality (CEQ) regulation for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and the BLM NEPA guidance handbook (H-1790-1). As the Lead Agency, BLM is also responsible for ensuring that mitigation measures are implemented on its land. BLM intends to work with the CPUC in implementation of mitigation monitoring during construction of the DPV2 project, and will likely use the CPUC's environmental contractor for monitoring on its lands.

For portions of the project on federal lands owned or managed by other federal agencies (e.g., Kofa National Wildlife Refuge or Yuma Proving Grounds), BLM will consult with these agencies to determine whether they would like the same contractors who are monitoring for BLM to monitor construction on these lands.

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H.2 Organization of the Final Mitigation Monitoring Plan

If the project or an alternative to the project is approved, the MMCRP should serve as a self-contained general reference for the Mitigation Monitoring Program adopted by the CPUC and BLM for the DPV2 Project. To accomplish this, the Final Mitigation Monitoring Plan should contain seven elements (as indicated below). If and when a project has been approved by the Commission and BLM, the CPUC and BLM will compile the Final Plan from the Mitigation Monitoring Program in the Final EIR/EIS, as adopted. The elements of the Mitigation Monitoring Plan are as follows:

MMCRP Introduction

- Authority and Purpose of the Program
- Program Adoption Process
- Organization of the MMCRP

Roles and Responsibilities

- Monitoring Responsibility
- Enforcement Responsibility
- Mitigation Compliance Responsibility
- Dispute Resolution

General Monitoring Procedures

- Environmental Monitor
- Construction Personnel
- General Reporting Requirements
- Public Access to Records

In the Final MMCRP, this section will contain a concise overview and reference description of the approved project that clearly outlines its physical locations and timetable, including construction spreads. This section will also specify the "master" reference(s) which the monitors and the Applicant will use in carrying out the Program, e.g., the Final EIR/EIS, but also more detailed working maps and plans. The Applicant Proposed Measures, to which SCE has committed to reduce potential impacts, will also be listed in this section.

In the Final Plan, this section will include the list of agencies with jurisdiction over the project (from EIR/EIS Table A-4), and a description of where their respective jurisdictions exist. For example, for a given construction spread, state what region of the California Department of Fish and Game has jurisdiction, provide the name of the regional manager, the address, telephone and fax numbers.

H.3 Roles and Responsibilities

As the lead agencies under CEQA and NEPA, the CPUC and BLM, respectively, are required to monitor this project to ensure that the required mitigation measures and Applicant Proposed Measures are implemented. The CPUC and BLM will be responsible for ensuring full compliance with the provisions of this

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monitoring program and has primary responsibility for implementation of the monitoring program. The purpose of the monitoring program is to document that the mitigation measures required by the CPUC and BLM are implemented and that mitigated environmental impacts are reduced to the level identified in the Program.

The CPUC and/or BLM may delegate duties and responsibilities for monitoring to other environmental monitors or consultants as deemed necessary, and some monitoring responsibilities may be assumed by responsible agencies, such as affected jurisdictions and cities. The number of construction monitors assigned to the project will depend on the number of concurrent construction activities and their locations. The CPUC and BLM, however, will ensure that each person delegated any duties or responsibilities is qualified to monitor compliance.

Any mitigation measure study or plan that requires the approval of the CPUC and BLM must allow at least 60 days for adequate review time. When a mitigation measure requires that a mitigation program be developed during the design phase of the project, the Applicant must submit the final program to CPUC and BLM for review and approval for at least 60 days before construction begins. Other agencies and jurisdictions may require additional review time. It is the responsibility of the environmental monitor assigned to each spread to ensure that appropriate agency reviews and approvals are obtained.

The CPUC and BLM along with its environmental monitors will also ensure that any variance process or deviation from the procedures identified under the monitoring program is consistent with CEQA and NEPA requirements; no project variance will be approved by the CPUC and BLM if it creates new significant impacts. As defined in this section, a variance should be strictly limited to minor project changes that will not trigger other permit requirements, that does not increase the severity of an impact or create a new impact, and that clearly and strictly complies with the intent of the mitigation measure. A Proposed Project change that has the potential for creating significant environmental effects will be evaluated to determine whether supplemental CEQA and/or NEPA review is required. Any proposed deviation from the approved project, adopted mitigation measures, and Applicant Proposed Measures, and correction of such deviation, shall be reported immediately to the CPUC, the BLM, and the environmental monitor assigned to the construction spread for their review and approval. In some cases, a variance may also require approval by a CEQA or NEPA responsible agency.

H.4 Enforcement Responsibility

The CPUC and BLM are responsible for enforcing the procedures adopted for monitoring through the environmental monitor assigned to each construction spread. The environmental monitor shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the CPUC and BLM.

The CPUC and , BLM, and USFWS (within Kofa NWR and Coachella NWR lands) have the authority to halt any construction, operation, or maintenance activity associated with the Devers-Palo Verde No. 2 Transmission Line Project if the activity is determined to be a deviation from the approved project or adopted mitigation measures. The CPUC and/or BLM may assign this authority to the environmental monitor for each construction spread.

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H.5 Mitigation Compliance Responsibility

The Applicant, SCE, is responsible for successfully implementing all the adopted mitigation measures in the MMCRP. The MMCRP will contain criteria that define whether mitigation is successful. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Other mitigation measures include success criteria that are listed in table at the end of each issue area section. Additional mitigation success thresholds will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

The Applicant shall inform the CPUC, the BLM, and their monitors in writing of any mitigation measures that are not or cannot be successfully implemented. The CPUC and BLM in coordination with their monitors will assess whether alternative mitigation is appropriate and specify to SCE the subsequent actions required.

H.6 Dispute Resolution

It is expected that the Final MMCRP will reduce or eliminate many potential disputes. However, even with the best preparation, disputes may occur. In such event, the following procedure will be observed:

- **Step 1.** Disputes and complaints (including those of the public) should be directed first to the CPUC and/or BLM's designated Project Manager, as appropriate, for resolution. The Project Manager will attempt to resolve the dispute.
- **Step 2.** Should this informal process fail, the CPUC and/or BLM Project Manager may initiate enforcement or compliance action to address deviations from the Proposed Project or adopted Mitigation Monitoring Program.

The following steps apply to the CPUC only:

- **Step 3.** If a dispute or complaint regarding the implementation or evaluation of the Program or the mitigation measures cannot be resolved informally or through enforcement or compliance action by the CPUC, any affected participant in the dispute or complaint may file a written "notice of dispute" with the CPUC's Executive Director. This notice should be filed in order to resolve the dispute in a timely manner, with copies concurrently served on other affected participants. Within 10 days of receipt, the Executive Director or designee(s) shall meet or confer with the filer and other affected participants for purposes of resolving the dispute. The Executive Director shall issue an Executive Resolution describing his/her decision, and serve it on the filer and other affected participants.
- **Step 4.** If one or more of the affected parties is not satisfied with the decision as described in the Resolution, such party(ies) may appeal it to the Commission via a procedure to be specified by the Commission.

Parties may also seek review by the Commission through existing procedures specified in the Commission's Rules of Practice and Procedure for formal and expedited dispute resolution, although a good faith effort should first be made to use the foregoing procedure.

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H.7 General Monitoring Procedures**H.7.1 Environmental Monitor**

Many of the monitoring procedures will be conducted during the construction phase of the project. The CPUC, the BLM, and the environmental monitor(s) are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with SCE. To oversee the monitoring procedures and to ensure success, the environmental monitor assigned to each construction spread must be onsite during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The environmental monitor is responsible for ensuring that all procedures specified in the monitoring program are followed.

H.7.2 Construction Personnel

A key feature contributing to the success of mitigation monitoring will be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures require action on the part of the construction supervisors or crews for successful implementation. To ensure success, the following actions, detailed in specific mitigation measures included in the Final Implementation Plan, will be taken:

- Procedures to be followed by construction companies hired to do the work will be written into contracts between SCE and any construction contractors. Procedures to be followed by construction crews will be written into a separate agreement that all construction personnel will be asked to sign, denoting consent to the procedures.
- One or more pre-construction meetings will be held to inform all and train construction personnel about the requirements of the monitoring program (as detailed in the Final Implementation Plan).
- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all mitigation measures requiring their attention.

H.7.3 General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the environmental monitor assigned to the relevant construction spread. A monitoring record form will be submitted to the environmental monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the environmental monitor. A checklist will be developed and maintained by the environmental monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The environmental monitor will note any problems that may occur and take appropriate action to rectify the problems. The Applicant shall provide the CPUC and , BLM, and USFWS with written quarterly reports of the project, which shall include progress of construction, resulting impacts, mitigation implemented, and all other noteworthy elements of the project. Quarterly reports shall be required as long as mitigation measures are applicable.

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H.7.4 Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the CPUC and BLM on request. The CPUC, the BLM, and the Applicant will develop a filing and tracking system. For additional information on mitigation monitoring and reporting for the Devers-Palo Verde No. 2 Transmission Line Project, the Energy Division of the CPUC will maintain an Internet website, accessible at the CPUC website at <http://www.cpuc.ca.gov/environment/info/aspen/dpv2/dpv2.htm> and at the BLM website at http://www.ca.blm.gov/palmsprings/devers_paloverde.html. In order to facilitate the public's awareness, the CPUC will make weekly reports available on the website.

H.8 Condition Effectiveness Review

As required by CEQA, the CPUC must evaluate the effectiveness of the mitigation measures that are implemented. In order to fulfill its statutory mandates to mitigate or avoid significant effects on the environment and to design a Mitigation Monitoring Program to ensure compliance during project implementation (CEQA 21081.6):

- The CPUC may conduct a comprehensive review of conditions which are not effectively mitigating impacts at any time it deems appropriate, including as a result of the Dispute Resolution procedure outlined in H.6; and
- If in either review, the Commission determines that any conditions are not adequately mitigating significant environmental impacts caused by the project, or that recent proven technological advances could provide more effective mitigation, then the Commission may impose additional reasonable conditions to effectively mitigate these impacts.

These reviews will be conducted in a manner consistent with the Commission's rules and practices.

H.9 Mitigation Monitoring Program Tables

Mitigation Monitoring Program tables are presented at the end of each issue area section (Sections D.2 through D.14). These tables, along with the full text of the mitigation measures themselves, will form the basis for implementation of the Mitigation Monitoring Program.

(END OF ATTACHMENT B)

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